



## EXCLUSIVE CONTRIBUTIONS

### What Patients Should Know.

By DR. A. T. BIGELOW, St. Paul, Minn.

The closing of the century is memorable for the attempts to right all wrongs, real or imaginary, of an individual, national or international character: There is a trend in the current of thought which marks an epoch that may be productive of benefit to toilers in many weary fields in many lands.

Consonant with human nature the general observation reverts to the special one's immediate surroundings and vocation.

The theme concerns all artists who are ambitious to carve their way to a niche in the temple of fame through sensitive dentine.

Generally, patients think they have the harder lot, possibly not considering that they sit only an hour or two, while the operator is on duty daily from five to seven hours; their trials are the more poignant, our duties on the drop by drop principle, the more wearing.

A glance backward discerns many a worthy brother early fallen by the wayside, and others within our personal knowledge whose fagged appearance shows too well the great nervous strain to which they are daily subjected.

Are not dentists as strong and vigorous at the outset as members of the other professions?

However this may be, is it not a fact that their expectation of life as computed by the experienced actuary is the lowest of all.

It is not a difficult task to seek for the causes which are instrumental in undermining the constitution and abridging life's span.

The chair duties are specially wearisome in long-continued efforts, exposed to the 'unwholesome draught,' the back resembling a spiral, the lateral curvature greatly exaggerated, cramping the spinal cord and great sympathetic, thereby impeding the functions of all the vital organs.

When it is considered that the kindly handling of patients has taxed to the utmost the inventive genius, the strength, and it may be said the life of some of the brightest lights of the profession, is it not time that a treaty of more hearty and complete reciprocity be negotiated with the powers that be at the other end of the instrument?

Could patients possess a better understanding of the proper condition in which to present themselves, and the desired etiquette of the dental chair, it would greatly facilitate the work, elevate the standard and prove a veritable boon to all concerned.

'Tis said, "the age is gone o'er when a man may in all things be all." The times demand a separation or division of labor.

Our patrons cannot be expected to evolve from their inner consciousness a correct idea of the duties in the premises, but should look to us as specialists for all requisite information.

The instruction naturally begins with negatives—the things contra-indicated precedent to a sitting. No special characteristics will be noted in chair ordeals peculiar to men except the one that, as a rule, they endure pain less patiently and objurgate more forcibly than women.

In the main the suggestions offered apply equally well to both sexes unless otherwise designated.

Nervous ladies should not make an appointment to be met immediately after a reception, a fashionable "German," or any other trying social or domestic duty, but should so arrange that the date of sitting will find them at their physical best. The condition of mind also is of moment, for any violent emotion or mental perturbation speedily reacts and leaves the body in a state of languor and lassitude.

A study to conserve nervous force in some exceptional cases might be made with advantage.

The athlete, in order to triumph over an antagonist, subjects himself to a severe regimen, daily exercise, and a strict observance of hygienic laws. Caries may be justly considered one of the curses generated by high civilization, and a successful effort to abort its evil consequences a triumph which well repays exertion and self-denial.

The writer has had a good opportunity to note peculiarities of patients in practice in several states and one territory, and it may not be amiss to portray a few characteristics which, to the expert, will reveal several species of the genus *un-ideal*.

They may be partially enumerated as follows, viz.:

**The Observers.** Every motion made about the chair is regarded with a feline watchfulness. They hold one spell-bound, as it were, like the ancient mariner, "with their glittering eye."

**The Inspectors.** These insist upon a digital as well as optical examination of everything within reach, not excepting the annealed gold. No instrument can be used without a close scrutiny, and anxious inquiries as to the supposed effect of their touch.

**The Exclaimers.** These are rich in stock expressions of disapprobation of all instruments and appliances, which they project into the ears of the long-suffering operator at short intervals.

**The Mal-Adjusted.** These never remain poised even while an instrument is being changed, and start so suddenly and frequently that all work must be done on the "fly;" both flexors and extensors must be on duty at the same time to prevent accidents, necessitating double tension. This species, fortunately, are not plentiful, but when encountered, draw freely on the contents of the nerve cells of the luckless operator.

**The Moaners.** These affect a dismal groaning during the preparation of cavity. A strong individuality only saves the dentist from the sensation of gradual loss of identity in that of the accoucheur.

**The Mischievous.** Usually young ladies, who amuse themselves and tantalize you by gazing full into your eyes to see the filling operation mirrored there.

**The Vain.** These persist in the retention of a mirror in hand, into which they look "many times and oft." Then there are those whom I will charitably not classify, who pretend to be hurt and make a great ado, under the mistaken idea that more care will be exercised, and who then go away and boast of their *finesse* to friends.

In some instances mothers essay to keep a child in lap, and young girls a pet dog in arms, but one must draw the line somewhere, and it may well be drawn at babies and pugs!

**A Memory.** One sitting lingers in my remembrance even yet, although it occurred in the good old Bay State about twenty years ago. *She* was unmarried, of somewhat ripe experience, strong-minded, and, as I distinctly remember, *well armed*. The excavation was being proceeded with, a sensitive point touched she petulantly ejaculated "Oh!" and, by a quick lateral movement, jabbed me in the epigastric region with a sharp elbow. I involuntarily exclaimed "Ah!" The ohs and ahs during that mutually trying operation were as regular as the systole and diastole of our respective throbbing

hearts. Thereafter my dear old partner, Dr. I., attended to her dental needs, he being better protected than I by adipose tissue at the vulnerable point.

This will suffice for one phase of the subject, and I think all who have been in practice ten years or more will bear witness that the imagination has not been drawn upon for any of these types of the disingenuous, for was it not of this sort that Milton penned the distich for us?

"Of their doings great dislike declared,  
And testified against their ways."

Thus far the physical has mostly been considered, but there are other forces, psychic and mesmeric, which, though I do not pretend to explain, are nevertheless felt, and constitute a potent factor in the relations of agent and subject.

If there is solicitude or want of full confidence in the occupant of the chair, it is measurably reflected to the practitioner, who thus labors at a disadvantage, and for this reason first sittings are usually most trying, and should be made short and easy until the principle of cognition is established or temperamental differences adjusted.

The phrase "*en rapport*," borrowed from mesmerism, admirably expresses this idea. It might be paraphrased and applied to our art after this manner, as the condition or relation in which the patient expresses by word and action a willingness to be subjected to some discomfort, and pain if need be, to effect the desired object.

It is practically true there are some natures so antagonistic, one to another, that the slightest contact is repugnant. When this untuned condition exists the indication is strong to seek professional services in a more harmonious environment.

Too intense sympathy is also opposed to the exhibition of skill. An excellent dentist is known to me, who will not attempt to fill a tooth for his wife—said it was impossible for him to suitably do the work.

Another confessed inability to serve his near relatives, but had no scruples regarding his wife, dryly remarking "that he did not mind hurting her; she was no blood relation."

**The  
Ideal  
Patient.** A pen portrait of an ideal patron will now be presented. The lady comes promptly, binds her hair with a fillet of lace or veiling, and, if very abundant, lets it down altogether; is habited in a gown that is not injured by a drop of water; retains the pose given in the chair; closes, or partially closes her eyes, and is oblivious to all surroundings.

Given such an opportunity one is at his best, and can produce work,

after its kind, as beautiful and enduring as the columns of Karnac or Grecian statuary.

Chair deportment is a severe touchstone of character and breeding. All the virtues possessed are brought out in relief—patience, resolution, fortitude, consideration for others, and withal the nameless grace with which the tactful person submits to the inevitable.

The reciprocal obligation between the parties in question might be compared to that of active and silent partners in business, equally interested in securing the success of the firm.

The adage, "Trifles make perfection, but perfection is no trifle," is markedly shown in our calling, as success hinges on a series of delicate manipulations, each of which must lead with careful precision to the end. A failure or lack of accuracy at any stage mars the work and vitiates our efforts.

The *best dentistry* no more than saves poor modern teeth, and any grade less than the best is bad.

It is of moment that our patrons should know and realize to the fullest extent that it matters little how skilfully cavities are filled, by what method or with what material; if the lesions are not on exposed surfaces the teeth must thereafter be kept *scrupulously clean* to secure a good degree of permanency.

Would that this fact could be engraved upon an ivory tablet and placed in every gentleman's pocket and on every lady's chatelaine.

Though the cavity may be hermetically sealed and the tooth theoretically restored to its pristine state, yet the conditions must be made more favorable by care and attention or the same destructive agents will again create havoc, especially in approximal and cervical regions.

Comparatively few of the non-professional have

**Oral Hygiene.** any adequate idea of the injurious consequences of

calcic deposits upon the teeth. If it were feasible to show them, in mouths other than their own, the effects of this accumulation, demonstrating that all gum tissue in contact with it is more or less diseased, causing absorption of the alveoli, recession of the gums and consequent loosening of the whole denture, and let them catch the *fetor* or *moldy* odor, no second lesson should be needed to convince of the necessity for its frequent and thorough removal.

A glance into the eye-piece of a good microscope with a portion of "tartar" freshly taken from the mouth, on the slide, would afford conclusive evidence of its unwholesomeness.

It is not a pleasing thought to a refined person that a substance be allowed to remain in the oral cavity, which is a habitat for micro-organisms.

Dentists still seem derelict in teaching the proper use of the tooth brush to their clientele, with the valuable adjuncts of waxed floss, a good dentifrice and some one of the many excellent antiseptic detergents now deemed indispensable.

It would be invidious to name any particular brush as superior to others, especially if patented with peculiarly shaped bristles, "a hole in the handle and in a yellow box."

If practitioners have not the time or inclination to impart oral instruction in the use of the necessary brush, then by all means give the patient one of the above which comes with the best printed directions extant for the acquirement of the polite art of scientific tooth brushing.

One practice has been made somewhat prominent of late, in a mercantile manner, calculated to deceive the unwary by false hopes of painless operations.

Hypodermic injections of anaesthetizing drugs may be necessitated in certain crisis and exigencies which arise in medical practice, but such procedure is not often advisable or sanctioned by good usage in our specialty.

Neither should powerful obtundents be often employed, for they lower the vitality of the tooth, and in some cases endanger the life of the pulp. I sometimes employ Ethyl Chloride as a *dernier resort* under suitable restrictions, with satisfactory results. However, dryness, keen, high-tempered, well-adapted instruments deftly handled contain more of promise to patrons, so far as safely minimizing pain is concerned, than all the medicaments of the pharmacopœia.

We are occasionally called upon to treat those whose dental organs are in a chronic state of hyperesthesia; for such no rules can be formulated.

To successfully meet these cases one soon arrives at his wit's end, and much need as a *sustainer* to draw on the peculiar characteristics of some worthies of the past and present, viz., the patience of Job, the skill of Tubal Cain, the finesse of Machiavelli and the all-around excellencies of champion Jeffries.

Young mothers are fortunate if in the care of a physician who, deeply versed in medical lore, has also some slight idea of dentistry. They will be informed that the period of gestation is specially destructive to the dental organs, not only from the liability to resorption of the lime salts, but also from harmful medicines, notably any preparation of iron, acting directly or secondarily upon tooth structure.

It is known that a diet rich in phosphates will, in a measure, prevent the resorptive process, but obstetricians assert that such food tends

to solidify the bony framework of the foetus, thereby increasing the difficulty and danger of parturition.

Here is presented an apparent dilemma in which eminent gynecologists assist us to determine what course to pursue by prescribing plenty of fruit acids, thereby holding the lime salts of the food in solution and insuring a full and natural supply to the mother's circulation for the nourishment of the being *in utero*.

Certain credulities still linger, even among the most intelligent of the laity, notwithstanding the efforts to popularize dental knowledge, and among them none is more common than that once the "nerve is killed" no more pain can be caused by a necrosed tooth. When informed that many of the most aggravated and painful affections least amenable to treatment never occur until after the devitalization of the pulp, the fact is received with surprise, and in not a few instances with a positive admixture of doubt.

One experience of pulp treatment, alveolar abscess or pericementitis, however, usually serves as a spur to make the subject more watchful and heedful in future. The pain connected with the teeth which all, old and young, so much dread, is really a blessing in disguise, for there are scores of people who, but for it, would neglect remedial measures until too late for best results. Nature has wisely placed within the dentine sensitive fibrils which, like a semaphore, signal to the sensorium of approaching danger.

Burke, in his essay on the Sublime and Beautiful, defines the difference between pleasure and delight, and avers that the former may arise spontaneously, while freedom from pain constitutes delight.

If our patrons could be fully persuaded to accept this scientific definition given by the eminent statesman and orator, it would greatly encourage them to endure some pain with fortitude, looking forward to an early, satisfactory and delightful termination.



## Combination Fillings.

By DR. T. S. SEELEY, Norwalk, Ohio.

About fifteen years ago, I began to mix zinc and amalgam in filling teeth, first, mixing the powder and amalgam with the fluid, afterwards using Dr. Spooner's method, as described in August, ITEMS OF INTEREST. I desire to give the result of my experience for the benefit of the profession and not by way of criticism.

My experience with zinc and amalgam mixed together is that the zinc will wear out and leave the amalgam prominent, thus giving a rough surface to the filling.

One-third amalgam and two-thirds zinc will cause a tooth with deep decay to become much discolored, just what we should avoid in the bicuspids or any of the anterior teeth.

It is a good filling to support frail walls, and will wear much better than zinc. If Dr. Spooner will use the zinc and amalgam, and in finishing cover it with some amalgam, he will greatly improve the value of his filling, but will have the discolored tooth nearly or quite as bad as with amalgam.

My experience has led me to mix the zinc and line the cavity well with it, and while plastic press the amalgam into it, clearing the edges so that the zinc will come well to the edge, but so as to be well covered with amalgam. If nicely done, we have no more discoloration than with all zinc. We have the zinc protected from the moisture, and little or no trouble with the edges of our fillings. The zinc becomes a great protection to further decay because of its firmness should moisture pass by the amalgam.

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## Under One Flag.

By DR. AUGUST L. WELLS, JR., Boston, Mass.

One of the most conducive evils checking the united progress of dental education in this country is the innumerable degrees conferred on our dental graduates. The mother profession (medicine) is surprised to know that such is the case.

Medicine, with all its years of existence, has had but one degree, M.D., the world over. For the past fifteen years I have studied the evils of these innumerable degrees. I have taken up the subject and have solved it as one would solve a problem in mathematics. I have arrived at the full conclusion that any person treating a part of the human body like the eye, the ear or the teeth, for a cure, is practicing a branch of medicine.

I am frank to say that any educational institution with the legal authority to confer a degree in any one of these branches should grant a degree having a medical tinge by ending with M.D. and the additional letter (in Latin), indicating the branch or the specialty, thus making the dental degree D.M.D., and presenting the graduates with a degree indicating a dental medical education, an education so thoroughly tinged with medicine that there can be no question as to the graduate's ability to treat his patient systemically as well as locally for his cure.

This degree calls for a course of dental study so saturated with medicine that a graduate upon receiving it will be thoroughly qualified to treat any form of dental disease the mouth and teeth are heir to, without the aid of a physician. This does not mean he should never consult with the physician. This course of study is to strengthen the union between the physician and the dentist in times of consultation.

We should make our course of study along these lines for our own name's sake and our future welfare.

What our country requires is better tooth doctors. I recommend this degree above all others, and the course of study for which the degree calls, to be adopted by all the schools as fast as they become able to present the course of study which the degree indicates, as the only possible way to procure an even, equally high, recognized standard of dental education in America. I say put us under one flag (D.M.D.), and with the course of study which I have mentioned.

One of the reasons for which I recommend this degree is that M.D. covers everything in surgery. There is no surgical degree in medicine, and it is safe to say there never will be one. Therefore, I can see no good grounds for one in any of its branches.

Harvard stands to this country as does Oxford to England. Harvard selected this degree, and not without thought for the future. It was a wise and far-sighted selection. I honor the institution for its choice and the course of study which the degree indicates. Harvard will never change this degree. She well knows it will do the same for her dental graduates as M.D. does for the medical graduates. Students

educated along these lines and under one degree will retain their title of doctor, which has already been scratched in two countries. They will have retained the confidence of the mother profession (medicine) in times of consultation, and the entire profession for the cure of all material diseases will become united and "inseparable forever."

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### Some Mysterious Cases.

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By D. W. BARKER, M.D.S., Brooklyn, N. Y.

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The cases described below have occurred during the past few years, and though at the time I thought I could guess at the cause of some of them, the absence of confirmative data in the others has led me to doubt the correctness of my guess.

A lady about forty-five years of age, with the most perfect denture I think I ever saw, consulted me in regard to an abscess, the fistula of which was in the site of the left upper second bicuspid, that tooth having been lost. Exploration failed to find any remains of the bicuspid root and the adjoining teeth were normal. Endeavoring to find the cause I at last concluded that the pulp of the first bicuspid was dead. This diagnosis was made more because of the absence of any other data than anything connected with that particular tooth, though I may add that it was slightly tender. Acting on this diagnosis I started to drill through the crown; the drill had hardly penetrated the enamel when the patient gave evidence that it was unmistakably alive. Of course I drilled no further and no harm had been done by my error. I treated the fistula with the usual remedies for some time, and making no progress I consulted her physician. Having a supersensitive professional conscience he almost refused to talk about the case, and the utmost satisfaction I could get was the assurance that I "never would cure that abscess." He was right; I did not. The patient subsequently died under circumstances that led me to believe that she had had syphilis, but whether the abscess was caused by the syphilis or the mercurial treatment I never knew.

A widow about sixty years of age presented **Case 2.** with considerable swelling and pain over the right superior central and lateral incisors; both teeth were very loose and sore. I diagnosed a dead pulp in the central as that had a filling in it and the lateral was intact. I lanced the gum and pus flowed freely and the swelling subsided in a few days, though the teeth continued loose. A week later I drilled into the central, the teeth being so

loose that I incased them in cement to hold them firm. To my surprise I found the pulp alive. I then tested the rest of the teeth with ice and they all showed live pulps. I was puzzled; there was the abscess plain enough, there was no mistake about that, but where was the cause? In the course of a week a similar though smaller abscess formed on the palatal gum near the first and second molars. A series of questions brought out the following facts: A few weeks before I saw her she had had a similar "sore spot," as she called it, in the roof of the mouth; the teeth had suddenly become loose; there was a profuse flow of saliva and a strong metallic taste in the mouth. Her ordinary health was good. Seventeen years previous she had been dosed with calomel for the purpose of relieving biliary calculus. Recently she had become "run down" in health to the extent that her physician had put her on a treatment of tonics. These facts together with remarks she reported made by the physician at the time caused me to conclude that the mercury administered seventeen years before had lain dormant in her system until a favorable condition for their development arrived and then this train of symptoms suddenly sprung into activity. Could this be true? In this case I had no reason to suspect the presence of syphilis, and if it was not the mercury what was it? Although the teeth became a little firmer when the inflammation subsided they never regained their former state of health and I subsequently extracted them when they were so loose as to be easily removed with my fingers; there has been no recurrence of the abscesses so far as I know in the last two years.

A lady of about forty-five years of age complained of severe pain and swelling in the region of

**Case 3.** the left lower lateral and cuspid; neither tooth had either cavity or filling. An abscess was apparently developing and as the lateral was loose and sore I diagnosed a dead pulp. I started to drill into it and found the pulp alive and ceased drilling. The abscess continued to form in spite of treatment and a day or two later it was lanced. On the subsidence of the acute inflammation the pulp was found to be still alive; my drill, however, had gone too close and it was deemed best to devitalize it, which was done, and the tap hole filled. In this case no history of syphilis or mercurial treatment could be found, though I think such a course of treatment might have been followed and the patient not have been aware of it. The symptoms were exactly those of the other cases and I cannot help thinking had a similar origin. A strange fact is that the abscess disappeared almost as quickly as it came without any treatment, the teeth regained their natural degree of comfort and are still retained.

What was the cause of these mysterious abscesses? *Quien sabe?*

## Successful Amputation of Pulp.

By H. N. LANCASTER, D.D.S., Chicago, Ill.

Miss B. presented, last month, a lower first molar for attention.

Upon examination, there was a large mesio-occlusal cavity containing the remains of a cement filling. A gold filling was desired.

During the preparation of the tooth, and in ascertaining the condition of the pulp, I removed the cement and found the tooth did not respond to thermal changes, nor did it show a sensitiveness to excavation or other mechanical influences, and, according to patient's statement, the tooth had not given trouble since it was filled, which was about ten years previous, although at that time it had caused considerable annoyance.

I drilled into pulp chamber without pain and found no odor. Next, I inserted a broach a third of the way into a canal through what appeared to be the pulp. On reaching to this distance, the patient felt a slight pain and I withdrew the broach.

In a few minutes the tooth was filled with blood. I took the pliers and lifted contents from the pulp chamber, which proved to be a pledge of cotton.

The portion of the pulp contained within the chamber had evidently been extirpated, and the portion in the roots preserved alive.

The operation had been performed at an age when it is reasonable to suppose the roots were not fully developed, and when the foramina had not assumed their normal size; but when I removed the balance of the pulp, I found the roots and foramina perfectly normal, and the tooth in a condition to admit of a successful operation.





# SOCIETY PAPERS

## President's Address.

By J. ALLEN OSMUN, M.D.S., Newark, N. J.

*Read at the Twenty-Ninth Annual Meeting of the New Jersey State Dental Society.*

*Gentlemen of the New Jersey State Dental Society:*

It is my pleasure and honor as president of this society to welcome you to its twenty-ninth session. We believe that the various committees have never done more effective work, and that the programme of this year is full of instructive and entertaining matter. Perhaps you will pardon me if I call your attention to some features of this year. You will notice the change of hours in the usual routine of meeting. We have no afternoon session. This makes it incumbent on every member, and I hope the visitors will do likewise, to be in their places promptly at the hour called, so that we can proceed at once with the regular business, that sufficient time may be allotted to the various essayists for the full and free discussion of their papers. I also indulge in the hope that strict attention will be given to the business of the society; that the various reports of committees shall be presented properly, and, in fact, that all the business of the society shall be conducted with accuracy. We have had considerable trouble, and have incurred great expense to rectify some mistakes in this direction. It requires "eternal vigilance" to keep the business straight and accurate.

Perhaps it is unwise to make any comparisons as to the work of the various committees, but I can hardly let this occasion pass without calling your attention to the magnificent array, which the Essay, Clinic and Exhibits Committees have given us, coupled with and supplemented by the work of our secretary. Pardon me if I call attention to the work of the Exhibit Committees, and emphasize the advantages that accrue to us. It would take considerable time and cost us great effort to go to see all these productions in their business places. Here they are all grouped together where we can compare and examine them at our leisure, without cost or much effort to ourselves.

I think I voice the sentiment of every member of this society, when I say that the programme of the twenty-ninth session of the New Jersey State Dental Society causes a feeling of thankfulness and pride, that our lot is cast with "The Jersey Boys."

I also wish to emphasize the fact that the essays which are to be presented to this society at the present meeting have been selected with the greatest of care. Furthermore, each essayist is to be here personally, the papers have not been selected to be read by title only, nor to be read by the secretary.

**Education  
of the Public  
Necessary.**

I believe that at times like this, if the presiding officer has any pet projects, he inflicts them on his hearers. I think I can truthfully say that the multiplication of the "Dental Shops" is to be regarded with serious apprehension. The employment of men, who to a certain extent are incompetent, and who at least do not have the responsibility of their operations personally, is to be regarded as lowering the profession of dentistry.

I believe that every honest and careful practitioner has asked, can this be regulated? If so, by what means? By legal exactions and regulations and law? Yes! to a certain extent.

But this does not go far enough. New Jersey has not been backward in surrounding these places with certain restrictions for the protection of the unwary and unfortunate victim, but to my mind this does not touch the essential features.

I thoroughly believe that it is the duty, as well as a great privilege, of every dental society to become the educator of the public in dental matters. The trend is in this direction, but societies have not risen to their opportunities.

The New Jersey State Dental Society has never been at the tail of the procession, and I hope sincerely that they will not let this chance of doing such a grand work for the public slip away from them. I hope that at this meeting some steps will be taken to appoint an editor, or a committee, whose duties shall be to select, arrange matter, and see that it gets before the people, by use of the public prints. Rob the papers of their technicality, but give the main points.

Show the people and teach them that there is a difference in dental professional services, that cannot and ought not to be measured by a sum agreed on in advance.

Such a course is a wrong to the patient, because if a man has to estimate beforehand certain contingencies which may or may not arise, in case they should not, the patient is wronged. On the other hand, the practitioner cannot tell what he may be called upon to do; it may be a long opera-

tion, it may involve matters he did not at all anticipate. If that proves to be the case, and a contract has been made, the practitioner is wronged. In either case it is wrong that a contract be made. If one does his duty by his patient, he cannot in the order of things determine in advance the sum to be charged for services rendered and to contract for professional services is wrong to both patient and operator. By explaining this to the public we will strike a blow against these quack establishments which will be fatal to their existence, just as soon as we once teach the people the difference between a truly professional way, and the method employed in dental shops.

The persons who are beguiled into these establishments go there because they do not recognize or know they are placing themselves in the hands of men whose only aim is to get their money. Therefore, I beg, gentlemen, that we of the New Jersey State Dental Society do our duty by the public, by the appointment of a committee or an editor as suggested. In no case should any member's name appear, but the articles published should be under the sanction of the New Jersey State Dental Society.

This method, I believe, would elevate the public's appreciation of what the dental profession is doing for the welfare of the people.

When I began the study of dentistry there were three things that usually happened during the life of the average person—one was to be married, another to get a new set of teeth, and the last was to die.

My preceptor used to buy from one to two hundred sets of teeth of exactly the same mould, a little different in color, and he used the same set of teeth for a big man or a little one, a dark man or a light one, a young person or an old person. But things have changed; people do not have their teeth extracted as they once did.

When a patient comes to you now who has lost teeth you almost invariably hear the remark: "I am awfully sorry I lost those teeth, but I didn't know any better. If I had known as much about dentistry as I do now, I would have had them treated, but I didn't know anything about it when I had them extracted, and I have been sorry for it ever since."

Why do they know now? Simply because dentists, in their individual and personal capacity, have educated the public to a certain degree, so that many know that dentistry does save teeth and that it is not necessary to have them extracted by wholesale and have artificial teeth.

That very fact shows why these dental shops flourish; people are learning that it is wise and to their best interest to have their teeth cared for, but they have not yet learned the difference between the professional and the commercial spirit of dentistry, and they go to those places because they think, in their ignorance, they can get as good service there as else-

where. Let the people once learn the difference, and they will have a higher appreciation of what dentistry is doing, and I believe that one of the duties of the dental profession is to give to the people a knowledge of what we are doing, not technically but plainly, so that they may appreciate the progress that is being made.

I also thoroughly believe we are on the threshold of many important changes in the practice of dentistry. Crown and bridge work has made many changes in our methods. It undoubtedly has been abused, but has also been a great blessing. We now are on the verge of what some one has characterized as the "Porcelain Era." The "Jersey Hornets" are early in the field to investigate to its fullest extent, and adopt it so far as in their individual opinion their patients will be benefited.

All this diversity of opinion points in one direction. In the near future we must look for dental specialists. The practice of dentistry is becoming so broad that to give patients the very best services which they have the right to demand, would carry the busy man beyond his capabilities.

During the last year one of our oldest members, Jeremiah Hayhurst, one of the former presidents of this society, has been called from his labors here. We miss his genial ways and kindly counsels, but as we are to devote some time to his memory, I only pause to say that personally I shall always cherish the fact that I had the pleasure of his acquaintance and example.

I believe that the members of our Dental Commission have been busy during the last year trying to elevate and enlarge the scope of their work. In fact, the rank and file of the New Jersey State Society have all been hard at it, to make this year's session as much of a success as in previous years. In conclusion, let me extend to all visitors a most cordial welcome, and also extend to them the courtesies of the floor and a hearty invitation to take part in all discussions of essays.



## The Value of High Fusing Porcelain in Contour Work.

By JOSEPH HEAD, M.D., D.D.S., Philadelphia, Pa.

*Read at the Twenty-Ninth Annual Meeting of the New Jersey State Dental Society.*

In the year 1882 Herbst was advocating glass fillings. These were made by taking impressions of the cavity in wax and making two moulds in such material as plaster and asbestos. The ground glass was then flowed into the first mould, where most of the shrinkage occurred. The partially formed filling was then removed, and placed in the second mould, when more glass was added until the filling was completed.

Even with this crude method the results were fairly satisfactory; but in 1887 Dr. C. H. Land made mechanically perfect edges possible, by devising the metal matrix. He used both gold and platinum, but found the latter preferable, as platinum could be adapted with a facility equal to gold, and allowed the use of high fusing tooth body, which is much stronger and less likely to deteriorate than the lower fusing bodies, these of necessity containing a large percentage of borax or glass.

From the discovery of the metal matrix dates all effective porcelain filling. Pieces of porcelain had been ground to fit labial cavities with fairly good results, pieces of enamel from extracted teeth had been inserted in a similar fashion, but the accurate adaptation of porcelain to approximal cavities as far back as the molars was impossible until the metal matrix was evolved; and Dr. Land deserves the thanks of the profession for this discovery.

At present the value of porcelain fillings is being gradually recognized. But the advocates of this method are represented by two distinct factions, namely, those who believe in using a low fusing porcelain that will melt in a gold matrix, and those who believe in using a platinum matrix and a high-grade porcelain that has a fusing point at least equal to the continuous gum which has been proved through years of experience to be strong and permanent. Let us examine the advantages and disadvantages of these two methods. In either case the cavities are similarly prepared. They must be shaped free from undercuts so that the matrix can be readily withdrawn. Where necessary a large separation should be obtained, and this is usually necessary in approximal cavities. The edges should be sharp, they should be smooth and free from all irregularities. But here the similarity ends. The advocates of the gold matrix are either compelled to invest the matrix, to pre-

### **Comparative Value of High and Low Fusing Porcelain.**

vent the gold from being burnt, while the porcelain is being fused, or else to use a porcelain of such low fusing material as to make its future deterioration in the mouth almost a certainty.

On the other hand, the advocates of platinum can flow high fusing durable body into a bare matrix, which is clean and readily replaced in the cavity for a second burnish, without danger of the distortion that must of necessity arise if any of the investment adheres to the outside.

If, however, but one burnish is used and the matrix is to be maintained in the investment until the entire filling is fused and ready for the cement, two objections may be noted that do not appear where the matrix is free to be replaced in the mouth. First, the color cannot be tested, and where necessary altered to a more perfect shade; second, the distortion caused by the unequal expansion and contraction of the metal and porcelain cannot be remedied as is possible when a second burnish is used.

Of course, to a great artist who could infallibly mix the colors to match, the first time, this chance for a second matching is unnecessary; but for the ordinary dentist such extra aids are valuable. In regard to the distortion caused by the unequal expansion and contraction of the matrix and porcelain, it is quite true that in pinhead cavities the warping is so slight that a second burnish is unnecessary, as the variation is less than the probable personal error of the operator; but in larger cavities, especially where compound curves exist, the double burnish is most valuable, and the best results cannot be obtained without it.

Dr. Williams, in his interesting letter on porcelain fillings, that appeared in the April *Cosmos*, advocates a high fusing body as a basis, and uses a lower fusing enamel for a finished surface. This is an excellent plan, and no doubt makes a much stronger filling than if the low fusing enamel only were used. I warmly approve his plan, and may add that I have used a method similar to it for over a year with good results. First, I used chips of high fusing porcelain teeth, mixed with low fusing enamel for the first biscuit. Later I used different colored high and low fusing bodies for the first and second bakings, just as Dr. Williams suggests, only my lowest fusing body was probably higher than his highest fusing body, but finally I decided to mix one part of high fusing colorless tooth body with three or four of the color desired in the lower fusing enamel for the first baking, and thus obtained excellent results without the necessity of having a large number of colors in the high fusing material. The one part of the high fusing colorless body added to three or four parts of the regular enamel lightened it so little that the plain enamel flowing over it on the second baking gives absolutely unchanged color, while undue contraction is avoided and the greatest strength obtained.

The plan advocated by Dr. Williams and others of packing in body while the matrix is in the tooth is excellent in simple cavities, easy of access, but in approximal cavities, complicated by blood and saliva, the matrix usually needs to be washed or heated to redness before any wet powder can advantageously be inserted. Theoretically the idea is excellent, and those who can successfully use it will no doubt be taking a step in advance. These slight deviations from Dr. Williams's method are, however, insignificant, and I heartily endorse his method and hope that the low fusing enamel used by him and by Dr. Jenkins will prove as durable as the higher fusing enamels.

In summing up the pros and cons of the two schools, it may be noted that the advocates of gold for a matrix claim for it the sole, and if true, the very important, advantage that it makes a more perfect matrix than platinum.

While the advocates of platinum for a matrix feel that they are able to get perfect adaptation with it, they do not feel compelled to resort to investment; they are absolutely free in the use of the second burnish, and above all, they can fuse a material which resolutely keeps its color under fire, that makes contour work easy, and has undisputed strength and permanence.

A few words on the subject of furnaces may not be out of place. The gas furnaces of Land or Downie, with their platinum muffles, are most effective, in that the work can be removed without cooling the furnace. The highest fusing bodies can be baked in these furnaces, and if efficacy were all that is desired, these furnaces would be perfect, but they entail the working of the bellows by an experienced person; they necessitate a certain, or rather uncertain, amount of smoke and gas, and the noise that accompanies perfect combustion is disagreeable to the ears of nervous patients. Therefore, if the dentist can obtain a 110-volt current I should strongly advise him to do so; if, however, electricity be not obtainable, I should still advise him to get a gas furnace and to do his fusing in the laboratory. The little electric furnace manufactured by Ash & Son, so warmly advocated by Dr. Williams, is absolutely perfect for the purpose for which it was built; it fuses the low fusing bodies of Ash with great precision, and will not burn them unless there be great carelessness. It will not satisfactorily fuse the higher fusing bodies, such as are commonly used in the platinum matrix, but as it was not intended for that purpose this is no discredit, and it has the great advantage seldom possessed by electric furnaces of having an open muffle, like the gas furnace, from which the work can be removed without breaking the current or materially reducing the heat. The Custer electric furnace is the one I

**Furnaces****for****Porcelain Work.**

have found most satisfactory for high fusing work. The peep hole allows the work to be readily seen, and if a second or third baking is desirable, the combined time of fusing does not occupy over six or seven minutes.

Before closing, it may be well to clearly define the method of filling teeth with porcelain used by me.

The cavities, as before stated, must be free from undercuts, the edges sharp and smooth, and where they are approximal there must be sufficient separation to allow the matrix to be withdrawn with perfect freedom. This last is most important. Approximal

cavities between the front teeth, as Dr. Williams urges, should be cut away freely from the back, just as we have long been accustomed to do in using gold. When the fillings are between bicuspids, the palatal or lingual walls should be cut away freely wherever it is necessary. With a perfect matrix excellent results can easily be obtained; with a distorted matrix success is impossible. Where the filling is to stand the force of mastication the edges of the cavity should always be at right angles to the grinding surface.

When a cavity is so prepared that the matrix may readily be removed, a piece of soft platinum one-thousandth of an inch in thickness that has been thoroughly annealed in an electric furnace or in a platinum muffle where no gas can touch it, is placed immovably over the cavity and burnished into all parts, great care being taken to sharply and smoothly define the edges. Should the bottom tear, it is of little moment, so long as the edges are smooth and intact.

Sometimes it is useful to form the matrix by driving the metal into all recesses with cotton, but while this is undoubtedly of use in some instances, the careful burnishing of a motionless piece of foil will generally give the best results. The matrix when finished should be carefully removed, and in order to destroy all organic material heated to redness.

The high fusing porcelains made for inlay work by the Consolidated Dental Manufacturing Co. are in my opinion the best porcelains ever offered to the profession. They are strong, they are tough, and in addition blend their shades with the accuracy of water colors; and the color is so permanent that excessive heat modifies it but little. The color or colors having been chosen, by means of the shade ring, the corresponding enamels should be mixed with water on a glass slab to the consistency of dough. With contours and labial cavities an exact match should be obtained, with approximal cavities the filling should be considerably lighter as the shadows in between the teeth tend to make the color dark, and for want of this precaution disappointment awaits many an operator who has observed the greatest care and nicety in obtaining his match. In such approximal cav-

ties pure white, toned with a little yellow, will in nineteen times out of twenty be the color needed.

When the enamel is mixed, according to the judgment of the operator, in small or simple cavities it can be used plain for both bakings, but in large cavities or contours, for the first baking, one part of colorless high fusing tooth body should be mixed with three parts of the enamel; this will make contour work easy, prevent undue contraction, and lighten the color so imperceptibly that the shade of the enamel in the second baking will be unchanged.

This extra high fusing mixture should be placed in the cavity almost, but not quite, up to the edges. If a contour is desired it should be formed then, proper allowance being made for the enamel that is to be flowed over it later, but under all circumstances the edges must be left clean and free.

The matrix containing the body is then placed upside down on a piece of soft cotton cloth, to remove the excess of moisture which a few taps on the pliers holding the matrix will bring to the surface. It is then dried and placed in the furnace and fused to a medium gloss, then removed from the furnace, cooled, placed once more in the cavity, and the edges burnished to overcome any distortion caused by the unequal expansion and contraction of the metal and porcelain. The filling is then removed, and built up flush with the plain enamel, when the final firing is given. Should one or two firings be necessary to obtain perfect edges, they can be given, but only one extra burnish is necessary. In stripping off the matrix the edge should always be pulled first from the porcelain, otherwise chipping may result. Some dentists advise the use of hydrofluoric acid for roughening the under surfaces of fillings before inserting them with cement; but fine grooves cut with a thin copper disk charged with diamond dust give better results.

Any thin, slow setting cement may be used for setting the porcelain. The color should approximate that of the filling. Before insertion the porcelain filling should be washed in alcohol and dried thoroughly, the cavity should then be slightly undercut and dried with alcohol; either a rubber dam or napkin can be used at this stage, but not sooner, as the tooth if dried before the filling is made will change its color, and so render the ultimate match bad. When everything is dry, the cement mixed to a creamy consistency should be placed in the cavity, and the filling being picked up on the end of a sticky spatula, pressed home. Pressure should be exerted until the cement sets or the expansion of the crystallization will cause gaping seams. A hot instrument applied to the inserted filling hastens the hardening of the cement very satisfactorily.

When the excess of cement is wiped off, paraffine or varnish should be flowed over the seams to protect the cement from the saliva, for at least six hours.

On the following day the filling may be dressed down with fine corundum stones or sandpaper disks.

This is the bare process. There are many minor though essential details that practice alone can acquire, details that are too numerous to dwell upon without the risk of complexity. If, however, there are any points not clear, I hope the gentlemen present will mention them, and I shall cheerfully answer to the best of my ability. In closing I wish to emphasize this one fact. I have criticised the methods of some of my professional brothers in this field, but I do not wish it to be understood that I myself am beyond criticism. Too often in dentistry, as in other professions, personal feeling and petty jealousy interferes with scientific co-operation. I admire and respect the champions of low fusing porcelains for the work that they have done; but probably no method is at present perfect. The process of filling with porcelain is too young; time and experiment alone can choose the best, and we may fearlessly await time's decree, certain that whatever is truly best will in the end survive.

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### The Porcelain Era.

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By W. D. CAPON, D.D.S., Philadelphia, Pa.

*Read at the Twenty-Ninth Annual Meeting of the New Jersey State Dental Society.*

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The subject of my paper is not only appropriate to the present time, but important to the general dentist. Some of you may ask what is "The Porcelain Era?" Has not the use of porcelain occupied an important place in our profession for many years? To these questions I reply by saying:

"The Porcelain Era" covers that time wherein porcelain has been applied to operative dentistry, such as inlays, sections of teeth, and the fusing of all porcelain crowns and bridges. Such work was only possible after certain appliances had been invented. I allude principally to the dental furnace, and today we have them in many forms, rendering it possible to perform beautiful and practical operations that a few years ago were considered impossible.

In the March issue of a New York dental journal there appeared an editorial which was concluded by the assertion that the present time is the "Dawn of the Porcelain Era," and that "where New York leads others follow." This statement I take exception to from the fact that we are long past the dawn, and New York never did lead in this class of work.

Contrary to the law of nature the first rays of this dawn did not come from the East, but from the Middle West; Detroit, Mich., and rays of this light in the form of dentists went forth to all parts of the United States, and Canada, to help spread the good tidings, and herald the coming of this new era.

Some have fallen by the wayside whilst others persevered and plodded along hoping for the broad sunlight which has come, and is here today.

Through the persistent hard work and untiring energy of one man, and through him to others, we have a branch of dentistry that has given the profession a higher standard than ever, for now it is truly artistic as well as scientific.

**Credit Given to Dr. C. H. Land.** The first gas furnace was invented by Dr. C. H. Land in 1884, and an article describing it was published in *ITEMS OF INTEREST* October, 1886. This furnace was so nearly complete that it is still unsurpassed for general utility.

The first article on porcelain operations as they are practiced today was by the same author in August, 1886, and published in *The Independent Practitioner*, and he also read a paper before the Central Dental Association of Northern New Jersey in August, 1887, entitled "Metallic Enamel Coatings and Fillings." It was a short paper and I shall take the liberty of reading it as a support to the position which I take on this subject. Qd.

"In the absence of practical demonstrations it is difficult to comprehend all the advantage brought about by improvements. The engravings (Figs. 1 and 2) are taken from practical cases that have at this date been in use for one year. In the case represented by Fig. 1, the patient was about sixty years of age. The right lateral incisor was prepared with a Howe post shown in its relative position. The five remaining teeth, after the cavities were prepared, contained tooth substance as represented by the dark surfaces, the white representing the lost portion of each tooth, restored with sections of porcelain made to imitate the exact color, and contour of the original tooth substance. The cavities are prepared as for gold fillings when a thin piece of annealed platinum plate, No. 35 Standard Gauge, is placed over the tooth and by means of burnishers made to take a perfect impression of the outer rim of the cavity, after which platinum pins are attached as shown in 'A.' The object of the pins is to serve as a fastening, both for the porcelain paste or body, and as retainers to hold the completed section in the cavity of the tooth. The porcelain paste or body is built upon the platinum disk and made to imitate the lost portion of the tooth. It is then baked in a gas furnace, requiring but twenty minutes for the first biscuit and fifteen for the second, and when finished it appears as shown in 'B' ready to be

cemented with oxy-phosphate. 'C' and 'D' are modifications for the other teeth and Fig. 2 illustrates porcelain facings for molars.

"The especial feature of this system, to which I wish to call your attention, is the large amount of tooth substance preserved above the gum, there being no necessity of telescoping the root so far below as to sever the tissues. This mode of practice also dispenses with the long operations and protracted use of the rubber dam; it almost entirely obviates the use of amalgam and saves the necessity for large gold fillings.

"There is no malleting, no long and tedious operations either for the patient or dentist, while at the same time teeth are perfectly restored, both in appearance and usefulness.

"There is another advantage in the use of the enamel coatings which is not, in my opinion, a trivial matter when large metallic fillings are inserted, the constant thermal changes consequent upon their alternate heating and cooling must exercise an unfavorable influence upon the tissues about the tooth. Even if the pulp is dead and the root be filled, there will be a checking and fracture of the tooth in time from the continually varying changes of temperature. An inflammation of the membranes will also be likely to occur from the same cause, and thus the tooth will in time be lost from the mere influence of the presence of a large mass of metal.

"It is also a fact that large gold fillings cannot be inserted without so much malleting that the strength of the tooth is gone and the frail walls are cracked beyond the possibility of repair. These dangers are all obviated by the use of the porcelain fillings, while teeth so restored are much more natural in feeling and more grateful to the touch of the tongue than any metallic filling can be."

Since this paper was written, twelve years ago, most dental societies have endeavored to have such a paper or a clinic on their programme, showing that the subject was one of interest if not accepted as generally practical. Each year the profession has shown a greater interest, and more converts have been added to the ranks, until we can use the words of Shakespeare in saying "They come not singly, nor yet in scores, but in whole battalions."

To those who dared to have the courage of their convictions the present change of feeling is one of great pleasure. To me it is a dream almost fulfilled and one of the happiest times of my life, for at last the derision, and scorn, and the name "crank" so familiar in the past ten years is replaced by the friendly greeting and recognition that every true man loves so well.

A patient of mine, the wife of a prominent physician, told me recently that many times she had endeavored to interest some of her personal friends, physicians and dentists she had met socially, but she was made indignant by their replies that such work was "quackery, and only performed by charlatans." At first she was influenced, but as years rolled by and her fillings proved so thoroughly satisfactory, she became a

greater champion than ever. This is only one of many instances that have come under my notice among my own patients, and illustrates what I have already said in regard to the early trials of a porcelain worker. The kind of dentistry that is demanded at the present time is that which is the least painful, and shows the least, and the man who can perform such work is going to be a success, and the judicious practice of porcelain will exactly fill this want. Less excavating is required, therefore less pain, and the work properly executed means a pleasing effect instead of the contrary. If this work is demanded why not use it if in your power to do so? Its durability is proven under every condition. That ever haunting cry of cement washing out is only a far distant echo, and at this point I will say that in my ten years of experience I never saw a porcelain inlay or filling come away from its position by the cement washing from the joints. No filling is infallible, therefore do not be inconsiderate regarding this class. Its chances for success in a tooth of poor structure is five to one over gold in the same place. My contention is now, and has been for years, that the dentist who is able to put in a good piece of porcelain work can go one better than his opponent every time, simply because he has greater resources to draw from.

**Method  
of Making  
Porcelain Fillings.**

The making of porcelain inlays and sections is the most difficult class of work in dentistry, for in other fillings it is a matter of adding to the form of the tooth without leaving the patient; with porcelain it is different because you must consider form, shade, and the actual making of the material, also the use of appliances entirely foreign to other work. The matrix or mould of the cavity must be absolutely perfect on the edges. The use of high fusing body requires platinum foil which is perfectly adaptable for low fusing also. It is claimed that gold foil is preferable for lower grade porcelain, but that is one of choice rather than merit.

After choosing proper shade, fill the mould or if a contour or section, approximate the size with body. This is a point worth noting, especially as I have recently read in a dental journal that "it is unnecessary to fill the matrix at first baking; small quantities and frequent fusing is preferable." This is wrong and misleading. Why should you waste time and risk destroying the shade by baking three or four times when twice is all that is necessary in nine cases out of ten? The advantage of fusing as large a quantity as possible at the first time is to have minimum shrinkage in the second bake, also to have all the change that must take place in the form of the mould do so before the second burnishing. Then comes the second fitting, when the edges are thoroughly pushed back to the tooth surface, even going so far as to force the thin edge of

the burnisher between the metal and the porcelain, of course taking care not to cut the metal.

Some years ago at a small meeting of dentists out West I asked a man who I knew had just bought a furnace, how he was making out with porcelain fillings. His reply was one of contempt and disgust, and I think somewhat forcible, for he said, "The damned things are no good! I get joints that you could throw a cat through and I can grind better fillings than I can make that way." I immediately asked him if he had burnished the second time before finishing, and found that he had not. He said he would try again, and I have no doubt that that point had considerable to do with his cat joints.

After the section is ready a groove or dove tail cut is made with a diamond or hard rubber disk. The latter is quite as effective and the cost a mere trifle in comparison. I will presume that you now have a well contoured, nicely shaded and perfect fitting piece of work all ready for putting into position. You may now use the rubber dam, but this is not necessary, it will bleach the teeth and show up your filling in a very disappointing manner, all of which must be explained to the patient. Then extra care is required not to displace the filling in taking rubber off. I use the Flagg system of napkining which is particularly suited to this work. Use a cement medium to slow setting and mixed to creamy consistency. If the work is approximal, force to place with a wedge-shaped stick, and allow it to remain for a short time. Clean off excess cement and cover the operation with hot paraffine wax. I think this is preferable to chloro-percha, rubber or sandarach varnish; it is not so smeary and gives the tooth and inlay a blended effect that is quite important for the first few hours.

One man writes that he ties his porcelain in place. That I have never tried and have yet to find it necessary. A subsequent sitting is always required to finish edges with small stone or sandpaper strips, and it is then that you will know what kind of an operation you have made.

**Choice of  
Bodies and  
Furnaces.** One of the leading, perhaps I should say burning questions regarding this work is the grade of porcelain body, whether high fusing is preferable to low and vice versa. It is a matter considerably discussed and can only be settled by thorough trial.

My experience has been more with high fusing material, but as low fusing bodies were placed on the market, I bought them until my stock of that kind is as large as the other, and I have not yet found inducement enough to change, in fact I have not met anyone schooled to the higher grade that cared to change. I admit that in certain cases the lower fusing is all that is required, but in large contours and corners I find the

advantage with the higher grade. I also think that color is better and edges are stronger, and there is less liability to change the shade when fusing. Fusing porcelain is one of the very important parts of this work and requires as much practice as any other part. In the past eight or ten years it has been my privilege to instruct a considerable number of dentists, and one of the first things I teach is the proper running of the furnace, and how to know properly fused porcelain. With a gas furnace this is highly important and one should learn to depend on the eye rather than time. Now-a-days we have gas, gasoline, electric and oil furnaces to choose from. The electric has the advantage of being clean, noiseless, and sure, but it is slow, especially if a wire gets burnt out. I have had a varied experience with furnaces, but I still stick to my little midget because it is quick and reliable. I have used it constantly without change or repair for seven years and hope I can use it as long again. It fuses low body in thirty seconds, and high body from two to three minutes according to the make. It is so fierce that it will even tackle "block" body, which some of you know is no joke.

Gentlemen, I have given you a few practical points on this important work, but there is one that is the most important of all and that is: do not let your enthusiasm get the better of your good judgment. It is the most fascinating, and pleasant, likewise the most aggravating though gratifying work in the whole of dentistry. In two words it is Mechanical Art and such a combination must be handled carefully.

You may be the most expert operator, and approach this work with all the confidence desirable, but sooner or later you will have a fall, and you are fortunate if you do not get a considerable number. This is the experience of everyone, but of course practice will always make more perfect. I know I am not far astray in saying, there are hundreds of furnaces decorating laboratory shelves, helping the place to look more confusing to the uninitiated, and useful to hurl an occasional cuss word at. An expensive ornament, but not more so than the highly polished cataphoretic appliance in the operating room. These things come high, but we must have them. Take them down, dust them off and try again. (I am speaking of the furnaces). Take new heart and courage, and don't let it beat you, remember how often your bicycle threw you until you got to be master of it. Think of what you may do in a few minutes which took some determined old porcelain workers hours to accomplish.

In the year 1892 I had a visit from an old Californian dentist and he was amazed to see me fuse a crown in five minutes, whereas he would spend hours of laborious work with an old coke furnace to get anything near the same results. He got a few points from me, and I took care that I got a few from him. That is the way to improve, visit each other

and see the actual working. Come together as porcelain workers, and more sound practical knowledge will be gained in a few minutes than it is possible to get by hearing or reading a dozen papers.

I conclude by extending to you all a cordial invitation to visit my office and laboratory, where I can show you that I am more at home in doing, than saying, and I can then incidentally show you a photo of the man who I firmly believe has done more for "The Porcelain Era" than all others together.

I allude to Dr. C. H. Land, of Detroit, Mich., from whom I have received that solid basis upon which I have built much that I know, and which has enabled me to educate others so as to have already established a Porcelain Era, not only in many of our own States, but in Brazil, Chili, Mexico, Uruguay, Australia, British Columbia, Canada, Japan, South Africa and other parts of the world.

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### National Association of Dental Faculties.\*

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The sixteenth annual session of the National Association of Dental Faculties was held in Niagara Falls, commencing Friday, July 28, 1899:

The following colleges were represented, as noted:

*Birmingham Dental College*, Birmingham, Ala.—T. M. Allen.

*University of California, Dental Department*, San Francisco, Cal.—A. A. d'Ancona.

*Colorado College of Dental Surgery*, Denver, Col.—J. S. Jackson.

*University of Denver, Dental Department*, Denver, Col.—A. H. Sawins.

*Columbian University, Dental Department*, Washington, D. C.—J. H. Hagan.

*Howard University, Dental Department*, Washington, D. C.—A. J. Brown.

*National University, Dental Department*, Washington, D. C.—A. D. Cobey.

*Atlanta Dental College*, Atlanta, Ga.—H. R. Jewett.

*Dental Department of Atlanta College of Physicians and Surgeons*, Atlanta, Ga.—Frank Holland, S. W. Foster.

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\* This report furnished by courtesy of the *Cosmos*.

*Chicago College of Dental Surgery*, Chicago, Ill.—Truman W. Brophy.

*Northwestern University Dental School*, Chicago, Ill.—Theo. Menges.

*Indiana Dental College*, Indianapolis, Ind.—George E. Hunt.

*State University of Iowa, Dental Department*, Iowa City, Ia.—W. S. Hosford.

*Louisville College of Dentistry*, Louisville, Ky.—H. B. Tileston.

*Baltimore College of Dental Surgery*, Baltimore, Md.—M. Whilldin Foster.

*University of Maryland, Dental Department*, Baltimore, Md.—John C. Uhler.

*Boston Dental College (Tufts Collège Dental School)*, Boston, Mass.—Chas. P. Thayer.

*Harvard University, Dental Department*, Boston, Mass.—Thomas Fillebrown.

*College of Dental Surgery of the University of Michigan*, Ann Arbor, Mich.—J. Taft, N. S. Hoff.

*Detroit College of Medicine, Dental Department*, Detroit, Mich.—G. S. Shattuck.

*University of Minnesota, Dental Department*, Minneapolis, Minn.—W. P. Dickinson.

*Kansas City Dental College*, Kansas City, Mo.—J. D. Patterson.

*Western Dental College*, Kansas City, Mo.—D. J. McMillen.

*Marion-Sims College of Medicine, Dental Department*, St. Louis, Mo.—J. H. Kennerly.

*Missouri Dental College*, St. Louis, Mo.—A. H. Fuller.

*University of Omaha, Dental Department*, Omaha, Neb.—A. O. Hunt.

*University of Buffalo, Dental Department*, Buffalo, N. Y.—William C. Barrett, R. H. Hofheinz.

*New York College of Dentistry*, New York City—Faneuil D. Weisse.

*New York Dental School*, New York City—John I. Hart, Roderick M. Sanger.

*Cincinnati College of Dental Surgery*, Cincinnati, O.—G. S. Junkerman, W. T. McLean.

*Ohio College of Dental Surgery*, Cincinnati, O.—H. A. Smith.

*Western Reserve University, Dental Department*, Cleveland, O.—H. L. Ambler.

*Ohio Medical University, Dental Department*, Columbus, O.—Otto Arnold.

*Pennsylvania College of Dental Surgery*, Philadelphia, Pa.—Wilbur F. Litch.

*Philadelphia Dental College*, Philadelphia, Pa.—S. H. Guilford.

*University of Pennsylvania, Dental Department*, Philadelphia, Pa.—James Truman, Edward C. Kirk.

*Pittsburg Dental College*, Pittsburg, Pa.—Walter H. Fundenburg.

*School of Dentistry, Central Tennessee College*, Nashville, Tenn.—G. W. Hubbard.

*University of Tennessee, Dental Department*, Nashville, Tenn.—L. G. Noel.

*Vanderbilt University, Dental Department*, Nashville, Tenn.—Henry W. Morgan.

*Tacoma College of Dental Surgery (North Pacific Dental College)*, Portland, Ore.—Geo. H. Chance.

*Milwaukee Medical College, Dental Department*, Milwaukee, Wis.—Geo. V. I. Brown.

*Royal College of Dental Surgeons of Ontario*, Toronto Canada—J. B. Willmott.

The treasurer reported that the Dental Department of Tennessee Medical College, of Knoxville, Tenn., was no longer in existence, having been absorbed by another school.

The Tacoma College of Dental Surgery, having removed to Portland, Ore., was given authority to change its name to North Pacific Dental College.

The trustees of Boston Dental College accredited Dr. C. P. Thayer as delegate to explain to the association that they had transferred the institution, with all its appurtenances, to Tufts College, and to request that the Tufts College Dental School be permitted to make application for membership at this meeting. On motion it was ordered that Tufts College Dental School be accepted as a continuance of the old college, and that the change of name be approved.

The applications for membership of the following schools, having been reported as regular by the Executive Committee, lie over for one year for final action:

*Medico-Chirurgical College of Philadelphia, Dental Department*, Philadelphia, Pa.

*Central College of Dentistry*, Indianapolis, Ind.

*College of Dentistry, University of Southern California*, Los Angeles, Cal.

*Illinois School of Dentistry*, Chicago, Ill.

*Washington Dental College and Hospital of Oral Surgery*, Washington, D. C.

*Keokuk Medical College, Dental Department*, Keokuk, Ia.

The Committee on Text-Books reported recommending that the following be adopted: "Anatomy and Histology of the Mouth and Teeth," by I. N. Broomell, D.D.S.; "The Practice of Dental Medicine," by George F. Eames, M.D., D.D.S.; "Comparative Dental Anatomy," by A. H. Thompson, D.D.S. (recommended last year in proof); "Methods of Filling Teeth," second edition, by R. Ottolengui, M.D.S.

The committee had also examined "Chemistry and Metallurgy Applied to Dentistry," by Vernon J. Hall, Ph.D.; and while admirable, and containing many excellent features, the committee believed it unwise to recommend it as a text-book, inasmuch as there are already two excellent works on the same subject on the list.

Of "Interstitial Gingivitis, or so-called Pyorrhea Alveolaris," by Eugene S. Talbot, M.D., D.D.S., the committee reported that it contained evidence of laudable and extensive research, but the subject is still a matter of so much controversy and diversity of opinion as to make undesirable a text-book upon it at the present time.

The committee also suggested the removal of Clifford's "Manual of Recitations," adopted in 1892, and Burchard's "Compend of Pathology," adopted in 1897.

The following resolutions, laid over under the rules from 1898, were adopted:

Offered by Dr. Allen:

*Resolved*, That it is the sense of this association that the present method of bestowing scholarships is no longer called for, and is detrimental to the best interests of the profession, and that hereafter no college of this association shall grant either free or beneficiary scholarships not absolutely made obligatory in their charter.

Offered by Dr. Barrett:

*Resolved*, That it shall be the duty of the secretary of this association to present at the opening of each annual session a list of the colleges, members of this association, who have been unrepresented for two years, that proper action may be promptly taken.

The resolutions of Drs. Allen and d'Ancona concerning the attendance of students were substituted by the following, offered by Dr. Willmott, which was adopted:

*Resolved*, That students in attendance at colleges of this association, to obtain credit for a full term, must be and remain in attendance until the close of the session.

In accordance with this action, Rule 4 was amended to read as follows:

4. In cases where a regularly matriculated student, on account of illness, financial conditions, or other sufficient cause, abandons his studies

for a time, he may re-enter his college at the same or a subsequent session, or where, under similar circumstances, he may desire to enter another college, then with the consent of both deans he may be transferred.

Rule 9 was amended to read as follows:

**ADMISSION OF UNDERGRADUATES OF MEDICINE.**

9. Undergraduates of reputable medical colleges who have regularly completed one full scholastic year of a six months' term and passed a satisfactory examination in the studies of the freshman year may be admitted to the junior grade in colleges of this association, subject to other rules governing admission to that grade.

The Committee on Conference with the National Association of Dental Examiners reported, as the result of several conferences held with a similar committee from the Examiners Association, that an agreement had been reached concerning the matters which had been in controversy between the two associations for several years. The report was adopted. [The basis of the agreement, with some account of the difficulties referred to, will be found at the end of this report.]

The following resolution was unanimously adopted:

*Resolved*, That the thanks of the National Association of Dental Faculties are due to the Chicago College of Dental Surgery for the courage and persistence with which it has maintained what we believe to be a correct principle, and that we regard the placing as unrecognized and disreputable in the newspapers and otherwise of one of the oldest and best of our professional teaching institutions an injustice that demands complete rectification.

Dr. Barrett offered the following, which were adopted:

*Resolved*, That the commonly accepted Code of Ethics regulating the conduct of practitioners in their relations with other practitioners be approved and made obligatory upon the dental colleges of this association in their relations with other colleges.

*Resolved*, That the section of the Code which refers to public advertisements be interpreted to forbid the advertising of the infirmaries of dental colleges in any manner that might be construed to be unprofessional if done by a practitioner.

*Resolved*, That as dental colleges should in every practicable manner impress the importance of ethical conduct upon their students, and should themselves set a good example in this particular, their public advertisements should be confined to a simple statement of the location of the schools, the date of opening and closing, with any other really essential facts, all details being reserved for the annual announcement, which itself shall not violate the usually accepted ethical tone.

Dr. Taft offered the following:

*Resolved*, That a Commission, consisting of three persons, be appointed, whose duty it shall be to take cognizance of, investigate, and advise with any parties contemplating the establishment of a new college or the reorganization of an old one.

In the performance of the duties of this commission it shall be competent to take into consideration the following points, viz.:

The consideration of any proposed new dental college; taking into account all the circumstances that attach to it; the motive that prompts such an organization; the need of it; the proposed locality; the character and ability of those who propose to conduct it; the sufficiency of the resources that may be available for its establishment, and whether on the part of the promoters, there is a just appreciation of that which is required for such an institution.

The attainment of full knowledge on these points would enable the Commission to advise wisely.

It would be the duty of this Commission to report to this body at each annual meeting.

The resolution was adopted, and it was ordered that the commission be elected with the other officers.

The following amendment to the constitution was adopted:

Change Article V. to read as follows:

Article V. The Executive Committee shall consist of five members, three of whom shall be elected annually; the two receiving the higher number of votes shall hold office for two years each. The Executive Committee shall have power to designate the time and place of meeting, make preparations for same, and transact such other business as usually devolves upon such committee. That five members be elected this session, the two receiving the higher number of votes to serve for two years, the other three for one year each.

On motion of the Executive Committee, it was ordered that colleges making application for membership in this body shall have present a copy of their annual announcement, and that a duly authenticated representative of the school be present at the meeting; without which the application shall not be considered.

It was decided that the change from six to seven months' terms, which goes into effect with the session of 1899-1900, should apply to all students in colleges of the association, even though the students may have previously attended under the six months' rule.

On motion of Dr. Barrett, it was ordered that a Committee on Law, to consist of three members, be elected to serve as a standing committee, which shall be authorized to levy such assessments upon the members of the association as may be necessary for the payment of past legal expenses and such as may accrue in the future in the suppression of the issue of fraudulent diplomas. Such assessments to be lodged with the treasurer, and paid upon the order of the Committee on Law. It was also ordered that all legal matters which may arise in connection with the National Association of Dental Faculties shall be referred to this committee.

The Committee on Foreign Relations, in concluding the report of its work for the year, offered the following resolutions, which were adopted:

*Resolved*, That the Foreign Relations Committee be instructed to take any steps which they may deem advisable for the putting an end to the issuing of fraudulent and irregular degrees, and to this end are authorized during the coming year to use any funds in the treasury of the association upon the approval of the Law Committee.

*Resolved*, That the European Advisory Board of the Foreign Relations Committee be and is hereby invited each year to send a delegation to attend the annual meeting of this association, and that such delegation be accorded seats in the meetings of the association, with all the privileges of debate.

*Resolved*, That no student coming from Europe shall be received by any member of the association until his credentials shall have been approved by the members of the European Advisory Board for the country from which he claims to come.

*Resolved*, That the Committee on Foreign Relations be authorized to appoint Advisory Boards for countries outside of Europe, whenever in their judgment it is advisable to do so, and report any such action at the next succeeding meeting of this association.

*Resolved*, That the Foreign Relations Committee be given jurisdiction in all foreign American dental educational matters, subject always to the approval of the National Association of Dental Faculties, to which a full written report shall be submitted annually.

Following are the members of the European Advisory Board, so far as appointed:

*Great Britain*—Wm. Mitchell, W. E. Royce and B. J. Bonnell.

*Holland and Belgium*—J. E. Grevers, Ed. Rosenthal and C. van de Hoeven.

*Denmark, Norway and Sweden*—Elof Förberg.

*Germany*—W. D. Miller, C. F. W. Bödecker and — Hesse.

*Italy and Greece*—Albert T. Webb, Tullio Avanzi and A. V. Elliott.

*France*—J. H. Spaulding, I. B. Davenport and G. A. Roussel.

*Spain and Portugal*—Portuondo Florestan Aguilera and — Thomas.

*Switzerland and Turkey*—L. C. Bryan, Theo. Frick and Paul Guye.

*Japan, China and Corea*—Louis Ottofy.

*Australia and New Zealand*—Alfred Burne.

The following resolution, offered last year, was again laid over for another year:

Offered by Dr. Hosford:

*Resolved*, That a four years' course in a reputable college leading to the degree of A.B., Ph. B., or B.S., or four years of biological work, be accepted as one year's credit in the colleges of this association, subject to other rules governing admission to second year grade.

*Resolved*, That students matriculated in both a collegiate and dental department of a university, having completed the work of the first year in

dentistry during the four-year collegiate course, may, on graduation with collegiate degree, be given full credit for one year in colleges of this association.

The following, offered by Dr. Foster, was referred to the Executive Committee, to be reported upon next year:

*Resolved*, That when a student fails in any part of the requirements for obtaining his final degree, such student must hold over till the next regular course, during which time he may re-enter and remove the conditions by completing his work and can only apply for his degree at the close of term as announced in the catalogue of such school.

The following resolutions lie over under the rules till next year:

Offered by Dr. Barrett:

To change Rule 1 to read as follows:

PRELIMINARY EXAMINATIONS.

1. The following preliminary examination shall be required of students seeking admission to colleges of this association:

a. The minimum preliminary educational requirement of colleges of this association, after the session of 1901-1902, shall be a certificate of entrance into the third year of a high school, or its equivalent, the preliminary examination to be placed in the hands of the State Superintendent of Public Instruction.

b. Nothing in this rule shall be construed to interfere with colleges of this association that are able to maintain a higher standard of preliminary education.

Offered by Dr. Weisse:

*Resolved*, That Rules 8, 9 and 10 of the Code of Rules be rescinded, and the following be substituted therefor:

That advanced standing to the junior or senior classes of institutions of this association shall only be upon certificate of one or two sessions' attendance, respectively, in an institution belonging to this association.

Offered by Dr. Truman:

*Resolved*, That members of this association violating the rules of this body shall, upon conviction, be fined not less than one hundred dollars for each offense, or be subject to censure, suspension or expulsion, at the pleasure of the association.

Offered by Dr. Barrett:

*Resolved*, That the Executive Committee be instructed that, except under what they shall decide to be unusual or extraordinary circumstances, and which in their report they shall detail to the association, they shall not report favorably any application for the admission of a new college in the following instances:

1. When there has not been actually secured and bought or leased for a term of not less than three years, and fitted up with all required equipments, a sufficiently commodious and convenient building, entirely ade-

quate to the needs of not less than one hundred students. Such equipment shall include not only the laboratories, infirmaries, etc., with proper chairs, benches and all apparatus required for complete practical dental instruction, but the rooms and fittings necessary for scientific training, with apparatus and equipments necessary for the proper teaching of bacteriology, histology, microscopy, chemistry and such other scientific studies as should form a part of an advanced dental curriculum of study.

2. When the character and attainments of its faculty, which must already have been named, and a list of the members of which with the respective positions they are to occupy shall be embodied in the application presented, are not such as to give assurance that the school will be conducted in a manner to reflect credit upon the dental profession, and to insure complete and adequate instruction in all branches of a broad dental curriculum of study.

3. When the proposed dental college or department is evidently and unmistakably intended primarily for the purpose of sustaining or strengthening another existing institution with which it is to be allied.

4. When the city or town in which such college is to be located already contains a college, or colleges, for dental teaching, of acknowledged efficiency, liberal character and ethical standing, sufficient in their opinion for the promotion of the best interests of dentistry and the dental profession.

Offered by Dr. Guilford:

*Resolved*, That while examinations for progress should continue to be held annually upon the subjects taught during the year, no final examinations shall be held until the close of the third year.

Dr. Taft, from the Committee on Curriculum, submitted as the report of his committee the following:

#### SCHEDULE OF STUDIES.

First Year.	Hours. Per Wk.	Second Year.	Hours. Per Wk.	Third Year.	Hours. Per Wk.
Anatomy and Dissection .....	2	Anatomy, Regional..	1	Therapeutics .....	1
Physiology .....	2	" Comparative	1	Pathology .....	1
Chemistry, Inorganic. ....	2	Physiology .....	2	Surgery, General....	1
Chemistry, Laboratory .....	4	Chemistry, Organic..	2	" Oral.....	1
Dental Anatomy.....	2	" Laboratory	4	Jurisprudence .....	½
Prosthetic Technic....	10	Metallurgy, Didactic..	1	Orthodontia, Didactic	1
Histology, Didactic .....		" Laboratory	2	" Practical	1
Materia Medica .....		Materia Medica.....	1	Operative Dentistry..	2
Comparative Anatomy .....		Operative Technic....	4	Prosthetic Dentistry..	2
		Bacteriology, Didactic	4	Electricity .....	
		Operative Dentistry,		Ethics .....	
		Didactic .....	2	History .....	
		Orthodontia Technic	1		
		Pathology .....	2		
		Orthodontia, Didactic			

#### INFIRMARY.

Prosthetic Dentistry..	5	Prosthetic Dentistry..	6
Crown and Bridge Work .....	3	Operative Dentistry..	15
		Crown and Bridge Work .....	4

The following were elected officers for the ensuing year: Jonathan Taft, president; B. Holly Smith, vice-president; J. H. Kennerly, secretary; Henry W. Morgan, treasurer; S. W. Foster, J. B. Willmott, executive committee for two years; H. B. Tileston, Theo. Menges (chairman), S. H. Guilford, executive committee for one year; W. T. McLean, J. D. Patterson, W. S. Hosford, *ad interim* committee; Truman W. Brophy, Edward C. Kirk, Albert H. Fuller, commission on proposed new colleges; A. O. Hunt, Henry W. Morgan, W. C. Barrett, committee on law.

The newly-elected president appointed the following committees: T. M. Allen, W. S. Hosford, W. P. Dickinson, G. S. Shattuck, J. G. Templeton, committee on schools; A. J. Brown, John I. Hart, Thomas E. Weeks, Edward C. Kirk, Thomas Fillebrown, committee on text-books; W. C. Barrett, J. D. Patterson, T. W. Brophy, S. H. Guilford, H. W. Morgan, committee on foreign relations; N. S. Hoff, G. V. I. Brown, committee to secure papers to be read at the next annual meeting; S. H. Guilford, W. F. Litch, N. S. Hoff, A. H. Fuller, C. L. Goddard, committee on curriculum..

The Executive Committee reported that it had decided to adopt the suggestion of Dr. Willmott to convene the next meeting on the day of the adjournment of the National Dental Association, at the same place.

Adjourned to meet at Old Point Comfort, Friday, June 29, 1900.

An important fact in connection with the meeting of the National Association of Dental Faculties was the presence of three of the members of the European Advisory Board of the Committee on Foreign Relations: Drs. Lyman C. Bryan, of Basel, Switzerland; John E. Grevers, of Amsterdam, Netherlands, and William Mitchell, of London, England.

Dr. Grevers, in speaking of the reception to advanced standing of students from foreign countries, probably struck the keynote of the entire situation. He was impressed, he said, with the idea that the foreigner comes to this country to study dentistry for one of two reasons: First, as a graduate, or as one having fulfilled the requirements in his own country, who desires to still further develop his manipulative ability by the acquirement of American methods; or, second, because he cannot fulfill the requirements in his own country, and hopes to secure something here which will enable him to return home and practice. So that if the applicant from a European country is not supplied with the proper certificates the colleges should be cautious about receiving him to advanced standing.

The proceedings of the late meeting were varied by two pleasant, albeit unusual, incidents.

The first of these was a trolley ride of the members of the association and their friends to Buffalo, twenty-five miles away, and return, as the guests of the Dental Department of the University of Buffalo. Arrived at

Buffalo they were taken to the college building, where an ample collation was served, accompanied by several felicitous speeches. The various departments of the college were then inspected and pronounced good, after which the party again boarded the trolley cars and were taken to view the grounds where the Pan-American Exposition is to be held two years hence. Then came the return to Niagara Falls, which was accomplished without incident and without fatigue, every one expressing his gratification over the outing.

The second was of the same nature, but involved a visit to a foreign land. The Royal College of Dental Surgeons of Ontario invited the members of the Faculties Association and also those of the National Association of Dental Examiners to visit the college and view the city of Toronto. In response about seventy-five persons took the train at Niagara Falls for Lewiston, where they boarded the steamer for the journey across Lake Ontario to Toronto. Arrived here a short walk brought them to McConkey's, where a fine collation was served and appropriately disposed of. Tally-hos and carriages then conveyed the party to various points of interest in the city, among others Parliament House, where they alighted and spent a short time admiring its beauty of architecture and internal arrangement and fittings. A short drive brought them to the Royal College of Dental Surgeons of Ontario, where they were assembled in the main lecture room, and speeches of felicitation and good-will followed; after which the visitors circulated through the building, inspecting the equipment of the college and having explained to them the methods of instruction in various branches. It was the universal opinion that the school was admirably equipped for the systematic instruction of students of dentistry. The entrance to the college was tastefully draped with the flags of Great Britain and the United States. From the college the party proceeded to the Forsters' Temple Cafe, where a second collation was served; after which they were driven to the steamboat landing. As the vessel moved off three cheers for the Royal College of Surgeons were given with a will. The return journey was made without mishap, and the excursionists unanimously declared they had had one of the most delightful outings of their lives.

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The members of the dental profession will be glad to learn that the differences existing for some years between the National Association of Dental Faculties and the National Association of Dental Examiners have been reconciled. These differences have been the cause of much friction between the two bodies.

The cause of the trouble was the refusal of the colleges to accept various rules which have crystallized into what is known as Rule 8 of the code rules. Sections 1 and 2, of the Examiners Association, because the colleges were not consulted in its framing.

The attempted enforcement of this rule recently led to litigation in the state of Wisconsin. The State Board of Dental Examiners of that state refused to admit to registration the diplomas of the Chicago College of Dental Surgery, the Northwestern University Dental School, the Pennsylvania College of Dental Surgery, the Ohio Medical University Dental Department, the Philadelphia Dental College, and others, on the ground that they did not in their preliminary examination come up to the standard established by Rule 8, and demanded that graduates of these institutions presenting diplomas for registration should submit to examination by the board as to their qualifications to practice dentistry.

This contention of the board was resisted by a graduate of the Chicago College of Dental Surgery, who brought mandamus proceedings to compel the board to accept his diploma. The board moved to quash the proceedings, which motion was denied by the court, with leave to the board to file its answer. The answer was filed, and the case was in that condition at the time of the meeting of the two associations at Niagara Falls on the 28th of July, 1899.

With a view to the adjustment of the difficulty committees of conference were appointed by the two bodies, which, after going over the matters in dispute, agreed on the side of the National Association of Dental Examiners to recommend that rule 8 be rescinded; that all colleges having membership in the National Association of Dental Faculties be placed upon the list of recognized schools, and that all litigation be withdrawn; and on the side of the National Association of Dental Faculties that a new rule governing the preliminary requirements for admission to the college courses should be adopted.

This action was ratified by the associations. The Examiners Association adopted a new Rule 8, Sections 1 and 2 of which read as below, the remainder of the rule being substantially as before:

Rule 8, new Sections 1 and 2:

"Section 1. Colleges desiring recommendation to the state boards by the National Association of Dental Examiners shall make application for such recommendation through the Committee on Colleges, on blanks provided for that purpose. This rule to apply only to schools making application to the National Association of Dental Examiners for recommendation and such schools as may be dropped.

"Section 2. The following preliminary examination shall be required of students seeking admission to colleges recommended by this association. The minimum preliminary educational requirements of colleges of this association for the session of 1900-1901, shall be a certificate of entrance into the second year of a high school or its equivalent, the preliminary examin-

ation to be placed in the hands of the State Superintendent of Public Instruction as adopted by the State Board of Missouri."

The Faculties Association adopted the following rule governing the preliminary educational requirements of students:

"The minimum preliminary educational requirement of colleges of this association for the session of 1900-1901 shall be a certificate of entrance into the second year of a high school or its equivalent, the preliminary examination to be placed in the hands of the State Superintendent of Public Instruction.

"Nothing in this rule shall be construed to interfere with colleges of this association that are able to maintain a higher standard of preliminary education."

The cause of friction being removed, the disputes which have arisen, there is every assurance, will be speedily adjusted and the two bodies will thereafter work in harmony.





## New Jersey State Dental Society.

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### Twenty-Ninth Annual Meeting.

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The twenty-ninth annual meeting of the New Jersey State Dental Society was held at Asbury Park, N. J., the opening session being on the morning of July 19, 1899. President Osmun called the meeting to order. The Secretary called the roll, and reported a quorum present. The president then introduced the Rev. Joseph D. Reed, of Ocean Grove, N. J., who delivered a prayer. Dr. W. E. Truex then took the Chair, and the President, Dr. Osmun, read his address.

On motion the President's address was received and referred to a committee, Drs. Riley, Chase and Adams being appointed. Dr. Osmun then resumed the Chair, and Secretary Meeker read the following communication from Dr. Stockton.

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### In Memory of Jeremiah Hayhurst, D.D.S.

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It is right that the living should praise the dead. If worthy they deserve it and even if unworthy the instinct of our nature is to say a kindly word. Life is but a struggle from the cradle to the grave, and when it is over we realize that the world will move on and the dead one will be missed for a short time and then only by a few; the great current moves on almost regardless of what or whom it carries.

I learn from the published programme that I am expected to call your attention today to the death of our beloved brother J. Hayhurst. The mention of his name brings to your mind the figure so familiar to us all, for so many years, in fact all the years of this society's existence. I do not recall a single year when he was absent, and it is very right that we his fellow members should pause a time to pay our tribute of respect

and love to so worthy a man. To him is largely due the success of this society. He was its first president and from then on until incapacitated by age faithful in every and all things that has marked our success. In the early days of our society some contentions arose, but the kindly spirit of our departed friend always counseled peace and made excuses for the shortcomings of others. No unkind word was ever uttered concerning him, and justly so, for he never uttered one concerning any of us. His great aim was to honor and elevate his profession and his history of dentistry given for four or five years before this society warrant the assertion.

Jeremiah Hayhurst was born September 25, 1819, at Middletown Township, Bucks County, Pa. He died at Lambertville March 22, 1899. His funeral occurred on the 25th. The ceremony at his late residence was in accordance with the custom of the Society of Friends. Walter Lang, an elder of the society, was president and spoke acceptably. Rev. W. W. Moffett of the M. E. Church also spoke in a very feeling and appropriate manner. His body was interred at the Solebury Friends Burying Ground.

Dr. Hayhurst was a son of Thomas Hayhurst and as a boy worked with his father at the pottery business, and also spent some years as a farmer's boy with Richard Barnard in Chester County, Pa. He afterwards went to school at Poughkeepsie, N. Y., where he paid for his tuition by his labor and afterwards for some time continued as a teacher in the same school. About the year 1840 he was engaged with his father in conducting a select school at West Chester, Pa. He afterwards kept a boarding school by himself at Kennett Square. The school was for a time quite successful and he was fond of referring to several of his pupils who attained some prominence, among them being Bayard Taylor.

While engaged here he met and married Mary E. Forwood, who survives him. Soon after his marriage he commenced the study of dentistry at that place in the office of Dr. Andrews and completed his course receiving the degree of Doctor of Dental Surgery at the Pennsylvania Dental College. He was at that time a man of mechanical skill and stood high in his profession. His first practice was obtained by traveling from place to place. For a short time he was located in Philadelphia and first became a clinical instructor in the college where he graduated, and afterwards a member of the faculty. He subsequently located at Atteborough (now Langhorne) Pa., where he practiced his profession and managed a drug store. In 1862 he moved to Lambertville, where he resided to the time of his death.

He was one of the organizers of the New Jersey State Dental Society, its first president and for many years chairman of the State Board of Dental Examiners. He represented the society in the National Asso-

ciation. In 1892 he prepared at the request of the National Dental Society a history of Dentistry for the World's Dental Congress at the Columbian Exposition and delivered an address on the subject before that body.

He was an active member of the Society of Friends and has been for some years a recommended minister of that society and at all times a most regular attendant of these meetings for business or worship.

He was for twenty years with short interval a Justice of the Peace of his county, for many years a director of the Lambertville National Bank, the Centennial Building and Loan Association and other public institutions.

For several years past he has been failing in health and afflicted with loss of hearing so that he became almost totally deaf. Yet, although weak in body he was only confined to his bed for about one week. His death was due to heart failure. His wife had been at his bedside a few minutes before and left him apparently sleeping easily, but from that sleep he will never awaken in this world.

And we as his friends and fellow workers praise him and say, well done thou good and faithful one.

He showed us how to live. His kindly nature has scattered sweet memories along the path of this society and of all its members brightening and perfuming the way for every one of us. Let us then follow on in like faithful work, helping, cheering and making the world brighter and happier for our having lived in as he did by his living in it.

CHARLES L. STOCKTON.

On motion of Dr. Iredell the above remarks were received and it was ordered that a page of the minutes be set aside for their insertion in honor of the memory of Dr. Hayhurst.

I feel that I cannot allow the occasion to pass

**Dr. Meeker.** without speaking of Dr. Hayhurst. He was one of the first men I met when I entered the society in

1870; he took me kindly by the hand, and that helped me along in after-years. It has never been my privilege to know a more perfect man than he. He had always the interest of the society at heart and would endeavor to encourage even its youngest members. Sometimes when we had written a paper and the severe criticisms of some of the members had filled us with resentment, Dr. Hayhurst was the man who would come and pat us on the back and say, "You did well, young man; keep right on," and thus made us feel like trying again. I was associated with him on the Board of Examiners, and I know his feelings were of the kindest toward those who came before the Board. During that time there were

a number of prosecutions against dentists who had infringed the law, and he was always inclined to be merciful towards them, though having at the same time the raising of the standard of dental education uppermost in his mind.

I know that we shall all miss him. His good works I hope will live forever. (Applause.)

**Dr. Riley.** Fifteen years ago this summer, I came to the meeting of this society for the first time. Dr. Hayhurst was one of the first men I met. He was president of the Examining Board and I found him kind, but firm. When the examination was over he was the first to congratulate me on my success. I had a great deal of respect for Dr. Hayhurst.

**Dr. Adams.** It was my privilege to go before Dr. Hayhurst for examination a good many years ago. That was our first meeting, but from that time on, to the time of his last meeting with us our relations were always most friendly, and my feeling of respect for him profound.

I do not think there was anybody who ever had any association in conversation with him or met Dr. Hayhurst for five minutes who could feel any way but kindly towards him, and feel assured that he had a friend in Dr. Hayhurst.

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Secretary Meeker stated that by direction of the Executive Committee he had prepared and had printed a syllabus of the proceedings of the society and its committees concerning the litigation with the Dentacura Company, which the Executive Committee had instructed him to read at this meeting.

On motion of Dr. Gregory it was ordered that the same be read by title only, and printed copies thereof be distributed amongst the members.

**The President.** Of course you all know the position we were placed in last year with reference to this matter.

In order to protect this society we employed counsel and suit was brought by this society against the Dentacura Company. A preliminary injunction was obtained, restraining them from using part of our proceedings, which we claimed to be our private property.

We were successful in the Court of Chancery; the other side then took an appeal to the Court of Errors and Appeals. The contention of Mr. Barrett, our counsel, was that all proceedings which came before this society were its private property as to its literary rights, until such time as the society published them officially, and the fact that strangers were

admitted to our meetings did not make any part of the proceedings public property. In the decision of the appeal, the Court of Appeals did Mr. Barrett the honor of adopting his brief as its opinion, without the change of a single word.

We won the case, but unfortunately it has cost us a good deal of money to maintain our rights. The expense was about \$350.

Dr. G. Carleton Brown from the committee on the advisability of publishing the report of the Committee on Dental Prophylaxis, of 1898, presented the following report:

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At our last meeting our president was instructed to appoint a committee to report on the advisability of publishing the report of the Committee on "Dental Prophylaxis," read at the 1898 meeting.

Your committee would most respectfully report, that owing to the careless and unscientific manner in which the report was prepared that we consider it as entirely useless and unworthy of a place in the archives of the society, and we would therefore suggest that the report be neither printed in pamphlet form nor in the published proceedings.

Your committee would further suggest that hereafter all papers and reports of committees relating to professional or scientific subjects be submitted to either the executive or essay committee before being presented to the society. The injurious effects of such crude and unscientific efforts have been plainly shown during the last year in relation to this very report. To have had a chemical and comparative analysis made, as it was claimed was done, in the report, would have cost at the lowest estimate \$1,000; no evidence of any expense has ever been presented to the society by the committee; the chairman claims to have had the analysis made by a druggist in his town. Of course these tests are absurd and useless, as every professional man knows, but the public does not know this, the report, however, containing this worthless stuff having been presented to a well known scientific body receives from that very fact an apparent indorsement, which in fact does not exist..

Your committee consider that every possible precaution should be taken against the schemes or conspiracies which may be instigated by unscrupulous manufacturers of nostrums and drugs for their own benefit.

(Signed) G. CARLETON BROWN, Chairman  
R. M. SANGER.  
CHAS. A. MEEKER.

### Porcelain Session.

Thursday morning, July 20, was devoted to the discussion of porcelain fillings. Joseph Head, M.D., D.D.S., Philadelphia, Pa., read a paper on "The Value of High Fusing Porcelain in Contour Fillings." (See paper.)

**The President.** When a gentleman leaves his office and crosses the ocean to pay us a visit, and at the same time to give us some instruction in his method of porcelain inlays, I know I voice the sentiment of every one present when I say that it is with gratification that they will give him a hearty welcome. I take pleasure in introducing Dr. N. S. Jenkins, of Dresden, Germany, who will now address you.

**Dr. Jenkins.** It is only at this moment that I have understood that I was expected to read a paper to this distinguished assembly. I have prepared a formal paper for presentation at the National Convention at Niagara Falls, and I must therefore beg you to kindly excuse me from presenting that paper or any other to you, and I trust you will permit me to make a few remarks upon the very intelligent, able and interesting paper which has just been presented to you.

Dr. Head has certainly gone into the subject of porcelain filling with great enthusiasm and has worked up the subject with untiring industry. I have the greatest admiration for him and for the other gentlemen, numerous in America, who have done something to advance this very interesting feature of dental practice.

When glass filling first came into use, in common with most of you, I had my rather interesting and trying experiences with the amazingly seductive and treacherous material and with the usual results of finding it totally unfit for anything except temporary work.

Finding myself incapable of getting, in all cases where I wished to use high fusing porcelain, a proper impression in platinum foil, I began some seven years ago a series of experiments looking towards the discovery of a low fusing porcelain which should be capable of being fused in a gold matrix. Very able and skilful men are capable of working any material under any circumstances and getting remarkable results, but it was my object, if possible, to discover something which I could work successfully myself and which would also be workable by men of no greater natural ability, and I have, therefore, been unceasing in my efforts and at last, on the 15th day of May, 1897, I finally decided upon the constituents of the body which I have ever since used. In carrying out my experiments I took for my model the Ash tooth. As you all

know, there is a great deal of difference in the character of the English and American artificial teeth. They each have their excellent points, but the English tooth fuses at a distinctly lower point than the American tooth, and is strong enough, and retains its color well enough, except perhaps in continuous gum work, to answer every possible requirement. In undertaking to make a low fusing porcelain I took therefore the model of the English tooth and followed the methods which Ash & Sons have carried out for producing the admirable substitute for the natural organ.

**Gold  
versus Platinum  
for Matrices.**

Now while it is quite true that one can in a great many instances make a matrix with platinum foil which will be a perfect imitation of the cavity, there are a great many instances where it does not seem to be quite practicable. However, there is absolutely no cavity in any position in the mouth where a skilful man may not, if he understands how to make his approaches, gain an absolutely perfect impression, with gold foil. Of that I am convinced. There is no cavity which one wishes to fill with porcelain of which one cannot get a perfect impression with gold foil. If that is possible with platinum, then the advantages which I have supposed gold foil to possess will not, in that degree, exist.

A gold foil matrix can be placed in a little asbestos bed at the bottom of the moulding cap and held securely in its position so that during the process of fusing it does not change.

If, however, for any reason, it should be desirable in the process of building up this filling to take it out of this bed and to reburnish it, then with care one can take the filling which one has built up in the gold matrix and can burnish it into the cavity a second time if it seems desirable. But it is not desirable in most cases. In most instances it would be a sad waste of time, for the whole process, no matter what system one adopts, is a great consumer of time.

As to the method of working the material which I have myself invented, it is a very easy and simple matter to build it up and to form such a shape as one desires. It is always better to mix the powdered material with absolute alcohol and that may be used to such a degree of moisture that one can easily form such a shape as one likes, the evaporation being very rapid. The advantages are partly that one is absolutely sure of getting no foreign body, no trace of iron or anything else in the use of absolute alcohol, and also that it evaporates with great rapidity and while being used in a very moist condition one can carry the material into very fine corners and into the deepest places with certainty.

The material I believe is as strong in proportion to high fusing

porcelain as are Ash teeth in proportion to American teeth; I should say about that relative strength.

As to the methods which Dr. Head has used in fusing his material, I, of course, have no reason to criticise that until I have the pleasure of seeing how the gentleman does the work.

I am glad to say that I believe my friend, Dr. Kingsley, has made a distinct improvement upon the simple apparatus which has naturally grown up during the long experiments which I have been carrying on in Dresden.

W. A. Capon, D.D.S., Philadelphia, Pa., then read a paper entitled, "The Porcelain Era." (See paper.)

When we get into Court, against our will, we

**Dr. Ottolengui.** always claim that the law only requires average skill.

Dr. Head and Dr. Capon have gone beyond the law and have much more than average skill; they have the skill of the expert, and much more would be required of them. Consequently it is very easy to believe that the impossible to most of us, might be accomplished by these gentlemen who have this ultra legal expert skill.

I believe that I could make no greater argument against the general utility of the high fusing material than to call attention to the fact that they have told us that this era dawned in 1884, and yet though we find that the gentleman who heralded the era patented his system and went around the country endeavoring to teach everyone how to practice it, he succeeded in producing only two experts, Dr. Head and Dr. Capon. That, it seems to me, is sufficient evidence of the fact that the real era, if it dawned then, was simply the dawn before the day, and that the day, the light in which all of us smaller men of lesser capabilities can work, is just coming to us. Consequently in the interest of what is undoubtedly the larger body of dentists, I venture to say a few words in favor of the low fusing body.

Just a word with reference to New York leading. In the editorial referred to by Dr. Capon, I did not mean to convey the idea that New York always leads, but rather that when New York leads, the world follows. For example, New Jersey had beautiful roads long before we had them in New York, and it was therefore possible, when a Jersey gentleman went wheeling, for him to take his wife with him, but ladies' wheels were sold in New Jersey for two or three years before the ladies of New York began to ride. But when the ladies of New York rode, the ladies of all the United States took to the wheel. (Laughter.)

Dr. Head said that a low fusing body prevents comparison of color; that if you are not satisfied with your color, you cannot, with a low fusing body, return it to the mouth and compare.

**Dr. Head.**

I think I said that where it was retained in the matrix, in the investment, it was not possible.

**Dr. Ottolengui.**

Yes, and that brings me to a point about the matrix and the investment. The general impression seems to be that the gold matrix is placed in the investment to prevent change of shape whilst melting the body. I believe that is a mistake; I do not consider that the investment in asbestos very materially protects the gold from any alteration of shape during fusing. The investment of asbestos and water is not at all similar to an investment of plaster; it is rather the engagement of the matrix in a mass which makes it more convenient to handle, and after it has been baked, the moisture being driven out of the asbestos, it is not a hard investment as a plaster investment would be, but it is rather a mass loosely put together from which the matrix can be readily removed. In other words, the matrix can be taken out of the investment without alteration of the shape of the matrix, so that if for any reason, as Dr. Jenkins has already told you, it proves advisable to carry the filling back to the mouth and refit it by a second burnishing or for comparison of color, or for any other purpose whatever, it is perfectly feasible to do so. So that the claim of advantage in platinum in that respect falls to the ground.

**Gold versus  
Platinum for  
Matrices.**

Before I had the pleasure of seeing Dr. Jenkins work, I believed I could get better results with gold than with platinum, although Dr. Head was kind enough to send me some of his platinum, which I used in a favorable cavity. I made a matrix of gold

for the same cavity and with equal care and caution I made two fillings, but in justice to my patient was obliged to use the one I had made in the gold. I had obtained finer edges with the gold matrix which, please understand me, only proves, not that a fine edge cannot be made with platinum, because Dr. Head makes magnificent edges with platinum, but in the hands of the average practitioner gold is easier to manage. I think more of us can succeed with gold than with platinum. It would be folly for me to say that success cannot be obtained in many cases with platinum, because we see it.

Since Dr. Jenkins has been here I have made a discovery which I think is very pertinent in this contention of gold versus platinum. I found that the Doctor was using Williams's No. 30 *gold foil*. I had not the knowledge, strange to say, that there are two materials of No. 30 gold, that is No. 30 *gold foil* and No. 30 *rolled gold*, and I observed with great astonishment Dr. Jenkins taking impressions of cavities, not only getting impressions of the inner surfaces of the cavity, but carrying his foil over the external surfaces of the tooth, so that when the matrix was

taken away, he had practically an impression of the entire tooth, cavity and all which, it is readily seen, is a great advantage in building up contours, because you then practically have the whole shape of the tooth before you while you are working. I borrowed some of his foil and used it and was delighted to find that I also could get much better results, at once, with that material, and it was only when I went to purchase some of this that I discovered it was foil rather than rolled gold. If you can produce so much better results with gold by merely using the foil rather than the rolled, it stands to reason that you can do better with gold than with platinum. Why better? The question of the durability of this material must come up, and I believe that the lasting quality of the porcelain filling will be in proportion to the depth of the cavity. Most of my failures in the past have been due to the fact that I have been obliged, because of intricacies, to make shallow cavities, because I felt I could not get a matrix out of deep places. Now I find it possible with this softer gold to take an impression such as I have seen Dr. Jenkins do, passing completely through from one side to the other of a bicuspid or molar and as far, in depth, as to the pulp chamber, and with a depth of that kind it would mean a fair certainty that your filling would not come out.

**How  
to Cut Retaining  
Grooves.** In connection with grooves I would like to make a point which I have never seen made and never knew of until I saw Dr. Jenkins at work, which only shows how much easier it is to teach

clinically than in print. I have seen statements in print of the best method of making these grooves, and I have always understood, perhaps because I did not thoroughly comprehend what was written, that it was merely a question of getting some roughness, and that grooves were cut indiscriminately. However, I observed Dr. Jenkins at work and saw that when he cut his grooves he endeavored, if possible, to get a filling so that it would be, if I may use a simile that will convey the idea to you, in the shape of a collar button, the groove being cut around the circumference of the filling. Thus he has grooves in the filling that will be in antagonism to the undercuts in the teeth.

**When and Where  
to Use  
Porcelain Fillings.** Now that the porcelain era is here, the question will arise where to use porcelain, and that is something which I think can be brought out in a plain manner. The primary idea of filling teeth was the preservation of the teeth. That, it may be consid-

ered, was the Saving Era, and the problem was studied and adequately met many years ago. There is no doubt that the salvation of the teeth by the insertion of fillings has been a possibility for many years. The next step brought us to what may be considered the Prosthetic Era. Teeth

were not only to be saved by being preserved in the jaw, but were to be made useful by having their shapes restored. So we had an era of contour gold fillings in this country, which has led the world. We have men who can do anything with gold and restore the smallest remnant of a tooth to its original shape and general utility. Thus with gold we have achieved success, both along preservative lines and along prosthetic lines. Now comes one who claims that we must not only have the salvation of the tooth, we must not only have the form and the utility of the tooth restored, but we must have the natural appearance. In other words, we have now come to the Cosmetic Era. The porcelain appeals to the eye as showing the beautiful and its principal claim to our attention is that it is cosmetic. It is also possible to make it prosthetic with a low fusing body in many hands, and with a high fusing body in the hands of our Philadelphia experts.

We are also told that these fillings are durable, but the durability of the porcelain filling is not a *primary* reason for using it, except in one or two instances to which I will allude. In other words, with gold the first object is to save the tooth and the second object is to make it useful. With porcelain the reverse is true; the first object is to restore beauty, the second is to restore form, and the last, which however is adequately met, is the preservation of the tooth. That should be kept in mind in choosing the material. Nevertheless, there is a situation where it seems that porcelain is king, where it not only fulfills the cosmetic requirements and the prosthetic requirements, but is the very best preservative of the tooth, I allude to those teeth that we find so often, especially in the bicuspid regions, where cavities are in such a shape that they would not mechanically retain the filling; that is, if gold were inserted, we could not expect it to be durable, and where nevertheless the pulp is alive and the tooth and the parts are in such condition of health that it does not seem advisable to devitalize the tooth. That is the very best place for porcelain, and you cannot do better service for your patient than to preserve the life of the pulp of that tooth, preserve the health and duration of that tooth, restore the shape of that tooth and obtain cosmetic effects by filling these most difficult cavities with porcelain.

When porcelain first was talked of having elec-

**Dr. Meeker.** tricity in the office, I purchased two furnaces, went to two clinics and thought I could do the work, but when I reached home I found I could not. As Dr. Capon has put it, you could throw a cat through the margins. Therefore I made up my mind that I was not expert enough, so I tried a new method, which I will mention. There is a compound sold in Newark that will not shrink in these furnaces, so I use ordinary modeling compound, and take an impression

of the cavity after preparing it as I think it should be, and from this impression I make a counter impression with this compound I spoke of, and after it is thoroughly dried out I coat it with a little silicate of soda to make it smoother, and put in my body. I found when I did it the first two or three times there was nothing left of the filling, it shrank down to nothing, so I cut up some old teeth and incorporated them in with the body and was successful. I find that I have been able to make quite a number of good fillings in that way. This is a very easy way and I advise you to try that first and after a while you may be able to do as Dr. Head, Dr. Capon and Dr. Jenkins are doing, using gold and platinum matrices.

I have not used any alcohol recently to mix my body with. I use the high fusing body first and then put a little of the low fusing on top to bring out a nice glazed surface. The greatest trouble I find in inserting my fillings in the teeth is the cement. Any chemist who can originate a liquid cement that would resist the secretions of the mouth, would confer a favor on our profession.

I am very glad to know that at last Dr. Meeker  
**Dr. Walker.** has stopped alcohol. (Laughter).

A great many good things start from New York, but they are all off on this porcelain business. We all know what Dr. Land did many years ago; we have watched him at his clinics, and we have seen his work some time after it was completed, and I am very sorry to say that I have never seen any great amount of work by Dr. Land that was really artistic porcelain work. I am sorry Dr. Land is not here, because he and I are very great friends, and he knows that what I say is true. (Laughter).

We have had years to bring to the front the Land porcelain work, and all these other porcelain works, but we could see, we people in New York, that up to the present time there was nothing much in it. If there had been we would have caught on, or we would have tried to.

One of the gentlemen said that if you would visit his office he would show you a portrait of the man who was right up on top in porcelain work. If you will bear with me a moment I will show you a living picture of the man that I think has done more to bring porcelain fillings to the front than any other man in the world. I refer to Dr. Jenkins. (Loud applause).

I had forgotten last year that the people who live in Dresden and around that part of the world ever took a vacation, so I went over there last summer to visit Dr. Jenkins, and to see him do this porcelain work, but unfortunately he was in London giving a clinic. I did not intend to speak on this porcelain work until after I had seen Dr. Jenkins work at the chair and make some of his inlays. I have never seen Dr. Jenkins operate.

I have seen some beautiful work that he has done, but I did not think I would be capable of saying anything about the work until I could see the operation in the chair.

We have been doing some very fine inlay work in New York city, and the teacher that we have had has been Dr. Head. I am very sorry that Dr. Perry is not here, because he is one who has done some of that work, and the porcelain inlays were made in my office—for the simple reason that I had borrowed his furnace (laughter), but now I have one of my own; I ruined Perry's, and had it patched up, and sent it back to him, and now I have a McBriar furnace, which is a little bit of a square thing, but it is a beauty for work.

I was speaking to Dr. Head about putting rubber dam over the teeth, and he said it would destroy the color. Let me explain how I arrange it. After I have done all the work, have got the inlay made and all ready, I put the rubber dam on.

**Dr. Head.** Oh, I do that.

**Dr. Walker.** I have never seen you do it. .

**Dr. Head.** In a great many cases there is no harm in doing it.

**Dr. Walker.** Well, I do it in all cases! You know if you have to use any of the cements you can meet with better success with the use of a rubber dam, and I do not see why the same is not true with a porcelain inlay; after you have it ready you will make up your mind what you will put it in with, and you put on the rubber dam to keep it dry, and let the patient wait a little longer, and let it get as hard as possible, and then the next morning he can come in and you can finish it down.

**Dr. Head.** You can readily keep it dry for two minutes with the napkins, and that is all that is necessary.

**Dr. Walker.** Well, I need more time. The cutting of these porcelain inlays with the diamond disk is all right, but after cleaning the platinum from the inlay it leaves it with a glassy, glossy surface. It seems to me better to take off that glassy surface and have it a little rough, and the only thing to do that with is the acid that was spoken of, and I do that on all occasions.

**Dr. Sanger.** We are liable, as beginners, to be misled in regard to high and low fusing bodies, the low fusing advocate leading us into the error of accepting as good enough that which is easiest. Whether the method is the easiest or not is a matter for you to determine, and you can only determine by experiment. Gentlemen, to the dental profession the only thing that is good enough is the best method, whether it be hard or easy. (Applause.) And the only

way to determine the best method is to make yourself just as expert as Dr. Head, Dr. Capon and Dr. Jenkins, and I know that it is possible for every man of you to do it. Do not be deceived into falling into the use of what appears to you to be the easiest.

Finishing the porcelain fillings after they had been set for twenty-four hours has been spoken of, and it is not clear to my mind whether the speakers meant that they ground the fillings to shape, or whether they meant that they finished off the edges where the surface of cement had been left, and so gave a better appearance to the work. In my own experience I have not found it necessary, nor has it seemed to me good work, to finish a filling, as far as grinding the porcelain is concerned, after it has set. It seems to me that if you are doing a porcelain filling it ought to have that class of polish which is peculiar to porcelain, and makes it so nearly imitate the natural teeth, and you know that you cannot grind the bodies and still have that surface. Therefore, if it has to be ground into shape, it seems to me that it should be done before it is finished, and that it should be fused again, with a slight coating of flux, so as to bring a gloss on the surface.

Dr. Head says he has never known any of these fillings to come out from the wasting of the cement.

These gentlemen who speak in regard to their insertion do not, as a rule, tell us what cement they use, and I would like to know what made the fillings come out if it was not due to the washing out of the cement.

**Dr. Ottolengui.**

The failures I have had have not been due to the cement washing out, but to the fact that the cavities had not been properly shaped.

**Dr. Nones.**

I have not made a specialty of porcelain fillings, but I have seen some of Dr. Capon's work which was very successful.

I believe good can be found in both high and low fusing bodies, and it is simply a question of experience working out the fine points of both.

In regard to what Dr. Ottolengui said concerning the cosmetic results, I do not see why the preservation of the teeth in porcelain work should not be considered as the very first point. I believe that in the end the main point would be the cosmetic effect, but if that is put first it might mislead some to think that with porcelain teeth could not be saved as readily as with gold.

**Dr. Leroy.**

I wish to speak of a fifth dental furnace. I am not in possession of either of the four mentioned by Dr. Capon, but being desirous of placing a porcelain filling in a tooth on the special request of a patient, I improvised one at a

few moments' notice, taking a rather heavy piece of mica for the base, and a thinner piece of mica for the top and sides, and after having prepared the cavity with platinum and using tooth body, I fused it in that and made a porcelain inlay which was rather creditable, I think. I used the blow pipe.

When a man advances a certain method, however

**Dr. Head.**

complimentary it may be to accuse him of expert skill, it is not fair as regards that method. I am delighted

in the light of Dr. Sanger's and Dr. Walker's remarks to think that there are other experts in the United States besides the two in Philadelphia! Difficulties do exist in this work and must be overcome, but anyone who goes into the work with the idea of getting the very best out of it, and working at it conscientiously, will really receive a large measure of reward.

There was a question raised as to the single burnish and the double burnish; that I think should be given a practical test by advocates of the two methods. In a simple cavity where the edges represent very nearly a circle or a curve more flat than the circle, the single burnish is all that is required, but where you have compound curves I have yet to see a filling put in by a single burnish process that did not have gaping seams in some part of it, and seams that one does not usually find where the double burnish is used.

I purposely refrained from speaking concerning cements, because I have been making some experiments which I hope will prove to be the basis of a paper later on. However, I will say that I use the Harvard cement, because it is smooth, and it is capable of being used at a proper consistency, and has advantages which seem to me to be equaled by few and surpassed by none.

As to the finishing of the filling, the porcelain should not be ground: it should be so contoured as to make nothing but the edge require finishing, although I must admit with humiliation, that sometimes I have found I have made the porcelain just a little larger than I should, and then it may be best to grind that edge or corner down, if you have a porcelain that is sufficiently dense to stand it.

The finer grinding of the Close bodies may be an excellent thing, but if you have a porcelain which is ground too finely, when fused it will more nearly approximate glass. How fine it should be ground is to be decided by experiments, for porcelain only differs from glass inasmuch as particles of unfused bodies are cemented together by the finer particles of the body that have fused and run in between.

I quite agree with Dr. Head that it is extremely desirable to have the filling of its exact shape, and not to be trimmed after its removal from the matrix, and that is something which one learns only by experience.

**Dr. Jenkins.** The most expert operation in porcelain I ever saw or ever did had a slight edge above the tooth.

**Dr. Capon.** My practice is to pass a piece of silk over the edge; if I find the silk cut I know the edge's not perfect.

I must say that I never saw a filling wash out, but as Dr. Ottolengui says when they do, it is because the cavities were not shaped right.

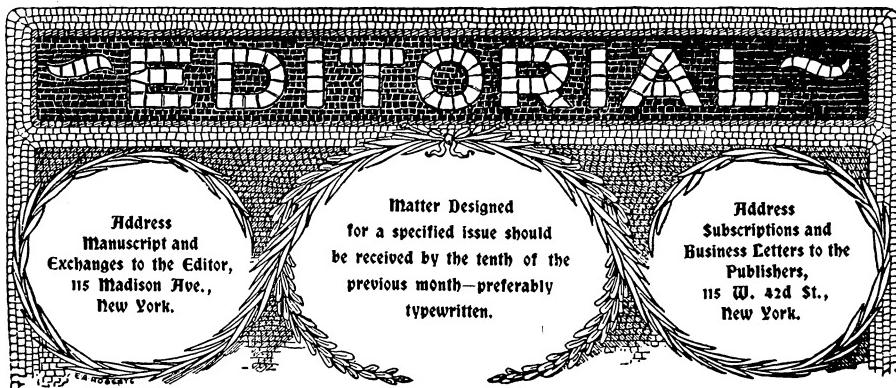
As far as undercuts are concerned, you do not need them in the cavities. I have put in hundreds of fillings and have not a half dozen with undercuts.

There has been but very little change in this work in the last few years, outside of the high and low fusing medium; I do not think it is necessary to go either to the highest or the lowest, but I have always worked the high fusing bodies more than the low. I never used an acid on a filling in my life.

Ten years ago I put in fillings for a gentleman in Buffalo, and I heard only a very little while ago that they are just as good today as when they were put in, and with proper care and treatment I have no doubt that porcelain fillings will remain almost, if not quite, as permanently as any other.

Adjourned until 8.15 p. m.

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## "How Sharper Than a Serpent's Tooth It Is to Have a Thankless Child."

New Jersey may always be counted on for a sensation, and the sensation which certain of the New Jersey men carried with them to Niagara bids fair to be discussed for some time to come. Before expressing any opinion on the subject it will be best to record the circumstances. At one session of the National Association of Dental Examiners, Dr. Adams, of New Jersey presented the following:

"Asbury Park, N. J., July 20, 1899.  
"To the National Association of Dental Examiners.

"GENTLEMEN: The State Board of Registration and Examination in Dentistry of New Jersey hereby with great regret tenders its resignation to your honorable body; the necessity for such action being set forth in the accompanying resolution, adopted this day.

"Most respectfully,  
"G. CARLETON BROWN, Secretary."

"RESOLUTION ADOPTED JULY 20, 1899.

"Resolved, That as under the present law of the State of New Jersey, the New Jersey State Dental Commission is unable to live up to the rules of the National Association of Dental Examiners or accept its list of recommended colleges, thus placing the commission in a false position and working a positive injury to the Association of Dental Examiners, and jeopardizing legal action in other States, we should, out of justice to ourselves and honesty to the association resign our membership therefrom, therefore be it

"Resolved, That our secretary be instructed to forward to the National Association of Dental Examiners our resignation as a member of

the organization, with a copy of this resolution and our sincere regrets that such unforeseen complications should have made this action necessary.

"G. CARLETON BROWN, Secretary."

The following is a part of the discussion which ensued:

**Dr. Dowsley, Mass.** Mr. President, I cannot but be surprised and I regret hearing this resignation and resolution. I feel that it must be a hasty move. The New Jersey Board has always been an active member of this association, and I feel that its loss would be a very serious one.

I therefore move that the resignation be tabled for one year.  
The above motion was seconded by several members.

**Dr. Adams, N. J.** Mr. President, the Board thinks that it has considered this matter, and the reasons for resigning are set forth in the resolution. We therefore hope, Sir, that there will be no other action taken upon this than simply an acceptance of the resignation.

**Dr. Meeker, N. J.** Mr. President. This was one of the greatest surprises of my professional career. I have been for seven years a member of this association and a member of the State Board of New Jersey, and I was elected last week for another term of five years. I think that not over six of the members of our State Society know of this resignation.

At our last State meeting the statement was made by one of the members of the Board that the Board is superior to and independent of the State Society. That will never do, for the members of the State Society elect the members of the Board and the Governor commissions them. I think that if all the members of our State Society knew that the Board was resigning from this association they would decidedly object to it. I fought the matter in the Board meeting, but it was apparent to me that the plan had been prearranged in advance among three of the members; it was apparent from their remarks that they had talked it over. Out of pride in my own State I hope that this motion to lay on the table for one year will prevail. After that I think our society may have something to say concerning it.

**Dr. Donnelly, D. C.** I think it quite proper that we should have a chance to think over this—by "we" I mean the New Jersey Board, the New Jersey State Society and the National Association of Examiners. I feel that the apprehensions of the New Jersey Board are not well founded. They say that they cannot live up to the rules of the National Association of Dental Examiners. So far as the spirit and essence of our rules are concerned, we are not at all concerned about their not living up to them; they have a good State Board, one of the best Boards in the country. They have been active members of this association from the earliest of my experience, and have done an immense amount of work in that time, and I should be very sorry to see them withdraw, especially on such grounds as that they cannot live up to our rules, for I do not think that there is, with possibly four or five

exceptions, any State that can accept the rules in their entirety and always work under them. We want in this organization to encourage the Board to a higher standard and to better methods of work, but when they by their own peculiar State laws are unable to meet anything that this association requires, if the spirit is right, and the standard of the State is all right, we do not want a little trifling difference to take them out and have us lose the benefit of their counsel, advice and active work. We want to stick together as brothers, and work to the end. I know that I myself have felt sometimes that our Board was not just exactly in harmony and we could not do just exactly as we would like, I mean in the way of supporting this organization, but we have never for a moment thought of resigning; we are going to stick to it through thick and thin, as we have all along, and do our part to elevate the standard of dentistry. Back of all that we are doing, the Faculties Association and the National Association and all organizations, is the honor and elevation of this profession of dentistry, and, as members of this association, being indebted to those who have gone before us, we should leave something better than we have found, because we have found things very much better than our fathers found them.

I hope, Mr. President, that the motion to lay on the table will prevail. I believe it is but courtesy to that Board; I believe the motion is made with the intention of showing that Board that we are disposed to treat them in the most courteous way and to give them time for consideration and reflection and for joining in with us and continuing in the work right along all the time.

Mr. President. This is not done as antagonistic

**Dr. Barlow, N. J.** to this association in any way, manner or shape. I think our past record will show that we have in every manner supported this Board in all its proceedings. But our law as it exists at the present time requires us to examine all graduates; graduates only. No man can appear before the Board unless he is a graduate, and he must produce an educational certificate from some academy or high school, otherwise there is no cognizance taken of his application. If he cannot do that, the superintendent of public instruction appoints a committee for his examination, and if he attains a certain percentage he then receives a certificate from the superintendent which entitles him to come before our Board, and he cannot do it under any other circumstances.

Mr. President. In reply to the assertion which

**Dr. Adams, N. J.** was made that the State Society does not know of our action, that possibly four or five men may know it, *I do not consider that we are amenable to the State Society.* We are a State organization appointed through the recommendation of the society, and I do not understand that we are responsible to the State Society for our action in this matter. We come here upon our own motion, not depending upon the State Society, but upon our own organization as the New Jersey Commission, and I believe that my confrere has made a mistake in thinking that we are in any way amenable to the State Society. *It would not make any difference if they did know it.* We did not try to

keep it from them. There were so many things to do at Asbury Park during the session that there was not time to bring this matter up; as a fact I do not suppose it was thought of. The gentleman who opposed it, as Secretary of the State Society, and as one who was present at all the meetings, had an opportunity to present the matter before the State Society. Furthermore, as to the accusation that it was talked over by the members, it certainly was; we intended to have Dr. Meeker present at one of the meetings and he could not come, and during the meeting the matter was talked up. We felt when we were at Washington last October that this would be the result. As those of you who were there know, because of dissatisfaction with the hotel arrangements, the New Jersey delegation left and went across to the Cochrane House, with the exception of Dr. Meeker, who, for reasons of his own, did not go with us to the Cochrane House, but remained in the Hamilton. It was impossible to have Dr. Meeker present with us, as we had a suite of rooms together, every time we talked, for we would talk at all times when we were in the room on subjects pertaining to the National Association of Dental Examiners, and at that time we saw this would be the result. I want our State Board put in the proper light before you gentlemen, and we would not bring the matter up until we had Dr. Meeker with us, and we finally succeeded in having him attend one of our meetings, although he was very busy as secretary of our State Society. But if we could not have talked this matter up at a time when Dr. Meeker was present, we would not be in a position to do anything.

I make these remarks that you may know the position in which we stand, and the reason it was talked over when Dr. Meeker was not present.

*Will you explain in what way your continued connection with this association would place your commission in a false position and work a positive injury to the Association of Dental Examiners, etc.?* (Reading from Resolution.)

If the New Jersey Board is in that position, the District of Columbia is in the same position, and so are other Boards. If we all withdraw simply because there is in our State law some peculiar condition, or some particular thing by which we cannot all be in perfect harmony, what will become of the association? If we have the spirit of harmony and the disposition to meet in the right spirit the requirements of this association, how would our continuance in it put us in a false position? We have sometimes to register men whom we do not want to register, we would do anything we could to prevent it, but we cannot do it, the law is such that we are obliged sometimes to take men in who have not complied with the standard of this association, but we are doing all we can and are exercising a moral influence constantly, and we feel that we are in good standing in the association and do not feel that we are in a false position because, we tell you frankly, the Board in its general conduct is doing everything it possibly can, but in some cases we cannot do just as we would like to. We had to register a man sometime ago who came from one of the Chicago colleges where we knew it was not right, but we could not spend four or five hundred dollars to beat him, even if we

could have finally succeeded. We saw that, by reason of the announcement of the college, the court was against us, and we had to accept him. That is one instance, and in a great many others we have done a great deal through our personal influence to keep up the standard and create a feeling of interest with us and an interest in the objects for which we are working. That is going right along all the time, and I think our continued association will be helpful to us and, to say the least, not at all harmful to the National Association of Examiners, and we are bringing things into better shape constantly. I do not see how any such action as that can possibly jeopardize the legal proceedings of any other State. I do not see how, when the New Jersey Board stands as one of the very best in the country, with one of the very highest standards, its continued association with us would hurt us. We all understand that we are not exercising legal authority, but merely moral influence, and I say through courtesy of the New Jersey Board, with respect to them and their position and the work they have done, that we must say to them, "No, brethren, we will not let you drop out now, we will give you time to think over it and try to hold you in friendship as we would hold the hand of a man who was falling over a precipice."

The resolution as offered explains itself. I want

**Dr. Adams.** to say this was not any star chamber act on the part of this State Board. Dr. Meeker called for an aye

and nay vote, and four members of the Board voted for the resolution as adopted. There was one member, and I need not tell you who he is, because you have heard him speak, who voted against it. We feel that we want to be released from this. We have talked it over, and it was not only talked over, but I have already told you where it was talked over. *We want that resolution accepted now*, and you will do us a favor to accept it, because we desire it and the resolution explains itself.

I would like to raise my voice in favor of the

**Dr. Finley, D. C.** motion to table the resignation. I have known the members of this New Jersey Board for sometime and feel that they are essential to the good working of this National Association. They have done a good deal of work, and I do not want to see them get out, but want to lend my voice towards helping them to stay in, and to give us a chance to think over it for at least a year, before we let them go.

When the State Board of California presented

**Dr. Meeker, N. J.** their resignation, we held it over for two years, and until it was found by the appointment of conference committees that through dissensions in their Board they were determined to resign.

I want to bring forward a point which seems to me of the utmost importance.

It has been said that the State Board has nothing to do with the State Society, that they are an *independent* body. Our Society nominates and elects the members of the Board, the Governor merely acts in a ministerial capacity and gives the members their commission. In New Jersey it is not as in some States, a political appointment made by the

Governor, but the men whom the members of the Society think are best adapted, are nominated and elected, and then the Governor in his ministerial capacity gives them their commissions.

I feel that I am placed in a very unpleasant position. Dr. Adams says that I had plenty of time to tell the society. I did, yes, but I did not do so. I thought that as I was a member of the Board, possibly it would not be the proper thing for me, in my capacity as secretary, to tell the society at the last session of the meeting; it would look like a personal matter. This action was taken on the last day of our State Society meeting, and after the society adjourned I spoke to a number of the members and they were all surprised, and the remarks of one or two of them to me were, "When the society finds that they (the Board) are superior to the society and that it does not control the Board there will be a change when election time comes."

I, as one, do not want to go out of this National Association, and it is nothing to you, gentlemen, to keep our resolution of resignation on the table for one year. There will be another annual meeting of our society before the next meeting of this association takes place. The tendency of everything in the world is evolution towards the better. Even if New Jersey does have a higher standard, it is singular that this is the first year it is made an excuse to leave this association; it may be that other States in time will come up to this high standard. We were talking about universal laws in this country, last night and as I said then, the people have to be educated up to them, but we will in time all come up to the standard. No harm will be done by keeping the resignation for one year.

**Dr. Barlow.** Dr. Meeker has just said that the action of the Board was not promulgated at Asbury Park until after the adjournment of the meeting. The members of this Board heard of it within two hours of the time the action was taken.

(Cries of "Question.")

The motion to lay the resignation of the New Jersey State Board and the accompanying resolution on the table for one year was then put, a *viva voce* vote was taken and the motion was carried unanimously.

There are certain features of this discussion which are most significant and worthy of separate consideration. The resolution of the New Jersey Commission declares that New Jersey cannot live up to the rules of the National Association. To a lay mind, one not familiar with the history of dental education in this country, these words would seem to indicate that the National Association was demanding a higher standard than the New Jersey Commission felt legally entitled to exact from its applicants for license. But a little study discloses that exactly the reverse was the case. That is, the New Jersey law demanding a higher standard than the National, New Jersey needs must drop out of an Association

of Examining Boards, professedly banded together for the elevation of the standard. Having found a lofty roost, this much educated Jersey bird must henceforth fly high and flock alone, an example which, if followed by other States, would disrupt the association and in time leave a few weaker communities to struggle helplessly. Thus the action of the New Jersey Commission, judged by their avowed excuse is exactly opposed to those high purposes to which it pledged its labors and its personnel when joining the National body.

Is there any other reason for this resignation?

Dr. Donnally asked a most pertinent question when he inquired as to how the continued connection of the New Jersey Commission would injure the National Association or place the New Jersey Commission in a false position. Dr. Adam's reply was—well it was no reply.

Dr. Barlow tried to explain that the resignation was necessary because the New Jersey law will not permit the Commission to examine any but graduates. The correlation of these two facts is difficult to discern.

Following Dr. Barlow, Dr. Adams made a speech equally pertinent especially in his allusions to occurrences at the Cochrane House in 1898, which must have shed luminous light on the subject under discussion.

But of course there must have been some reason for this resignation. It was rumored at Asbury Park that certain persons did not desire to see Dr. Meeker re-elected to succeed himself as a member of the Dental Commission, yet he not only was elected, but was nominated by the alleged opposition candidate who thus declined to lend himself to the downfall of Dr. Meeker. Now it happens that Dr. Meeker is, and for some years has been the secretary of the National Association of Dental Examiners. Of course if the New Jersey Commission should resign, Dr. Meeker could no longer be a member or hold office as secretary. Have we found our correlation of facts?

Perhaps the most significant feature of the situation is the unique claim that the Dental Commission of New Jersey is not, as Dr. Adams puts it, "amenable" to the State Society.

Have these gentlemen forgotten how they obtained their preferment? Was it not through the votes of their fellows in the State Society? Had they expressed these views prior to election would they have been elected?

Is it conceivable that a State Society would choose as examiners, men who would not be "amenable" to the parent body? Is it probable that when the great State of New Jersey placed the selection of the dental examiners in the care of the State Dental Society it meant the State Society to have no further control over their acts? The view is not tenable since the State not only entrusted the society with the power of electing these gentlemen, but it likewise gave the society the option of not re-electing them.

The principle as enunciated by this New Jersey Commission is too revolutionary to be sanctioned by the profession at large. A public officer must always be responsible to his constituents, and should give ear to their desires, even though it be true that the constituency cannot actually control his legal acts. Where an official does contrarily, the voter may wait for the next election, or he may seek the removal of the objectionable individual. Thus the New Jersey Society having elected its commission, and the Governor having appointed them, it is conceivable that if the State Society should "recommend" the removal of one or more of its Commissioners the Governor might heed the message. In this view of the matter are the New Jersey Commissioners "amenable" to the State Society?

But there is another view. Whatever powers the Dental Commissioners of New Jersey may have *within the borders of their own State*, and however much they may defy the State Society, they are not members of the National Association as a legal constituent in a legal whole. That is to say, the National Association is not to be likened to our National Congress, where each member is the legal representative of his State, responsible alike to State and Country. Consequently the New Jersey Commission does not *legally* represent the State of New Jersey in the National Association of Dental Examiners, since the Examiners Association has no *legal* recognition from any State. Thus the dental laws of New Jersey have no bearing upon membership in the National Association.

The Examiners Association aims at bettering dental education and membership in it is voluntary. The Examining Boards from the various States are, in a sense, delegates from their State societies which created them in the first instance. Thus the resignation of a Board from the National body, should invariably have the sanction of the State Society, and in

this instance the National Association was most commendable in waiting to hear the voice of the New Jersey Society before accepting the unauthorized resignation of its commissioners.

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### W. G. A. Bonwill Dead.

Dr. W. G. A. Bonwill is dead. In him the profession loses one of its most illustrious men. I lose one of my warmest and most admired friends. It was an advantage to know him and a privilege to be received by him in his home, at all times as I was, as an equal, irrespective of age and personal achievements.

Born in Camden, Del., Oct. 4, 1838, he died in Philadelphia, Sept. 25, 1899. Throughout all the sixty-one years of his life he faithfully lived up to the motto which he wore engraved on his ring:

*In Veritate Est Victoria.*

And yet in spite of a really affectionate disposition, and a generous willingness at all times to share with his fellows the results of the exercise of his mechanical genius towards the elevation of dentistry, he made enemies, and it was ever pitiful to hear him make such remarks as: "I am proud of the manner in which my native city has disowned me." Yet, though the statement that he made enemies is true, he likewise had innumerable staunch admirers and many real friendships. Among his papers will surely be found a sufficient number of letters of commendation from prominent men throughout the world to have satisfied even Bonwill. It may please the writers of these to know that their written words cheered his declining years and that it was a pleasure to him to read aloud these letters to friends such as I, who might spend a night with him and be willing to sit up into the small hours. And now he has passed to that realm where naught but love resides, and enemies cannot reach him. *Requiescat in pace.*

RODRIGUES OTTOLENGUI.

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Questions will be answered in this department, provided the answers would be of general interest. After publication our readers are cordially invited to make further reply, criticism or comment.



The meeting of the National Dental Association at Niagara Falls was a magnificent success. The attendance was unusually large and moreover the most prominent men throughout the country were present, and the papers were of a high order.

**Success Due to the  
President,  
H. J. Burkhart.**

The Omaha meeting having been such a signal failure it is worth our while in view of the future to inquire into the causes which made the very next meet-

ing so great a success. As contributing causes the popularity of Niagara as a place of meeting, and the fact that the meeting occurred nearer to the large metropolitan cities with their great aggregate of dentists, must of course be reckoned. But the chief credit should be awarded to the president, Dr. H. J. Burkhart. It is true that the section officers did their share, but section officers existed prior to the Omaha meeting; indeed, there has been little change in the personnel; it must be conceded therefore that even the energy of these gentlemen was but a reflex of an impetus originating with the president.

It can be stated that within a week of his election Dr. Burkhart had communicated with his friends demanding their assistance and allegiance in making the Niagara meeting successful. Especially did he point out to the New York men that the National Association had conferred upon them an honor in choosing their state as a meeting place and one of their number as their presiding officer, and he insisted that New York should aim to make the meeting memorable. Within a month the president through his personal solicitation had secured the promise of several important papers, including one from Dr. Jenkins, of Dresden, who came across the ocean to fulfil his pledge in person. Hence with due thanks to all others who worked for the meeting, and there were many, the chief praise must be allotted to the retiring president, who fulfilled all his duties so well and gracefully. The Association is also to be congratulated upon choosing Dr. Holly Smith as its next president, his personal popularity as well as his known perseverance and interest in the welfare of the Association which he helped to organize, being such as to give us promise of another good meeting in 1900.

In addition to the National Dental Association  
**What Was Accomplished at Niagara.** there were also the usual annual meetings of the Examiners and Faculties Associations, and it is pleasant indeed to record that these two bodies have at last

found a means of settling their differences, as elsewhere reported in this number. This is most opportune, as the time is ripe for great strides forward not only in advancing the standard of admission into the colleges, but for bettering the quality of education afforded. The Faculties being no longer troubled by the antagonism of the Examiners will undoubtedly achieve better things in their college management, and the Examiners having ceased to wrangle with the colleges, may perhaps find time to discover a means of unifying the State laws, or at least of giving us interchange of license, by the plan outlined in our July issue, or by any other which would promise practical results and relieve honest, capable dentists from the nuisance of examination whenever they cross a state line.

At least one of the objects for which we have contended recently in our pages seems to have been achieved; that is the abatement of objectionable college advertising. The Faculties Association adopted a rule forbidding a college to advertise in a manner which would be interdicted by the Code of Ethics in the case of an individual practitioner. This resolution will be found in the report of the Faculties Association meeting in this issue. We have received several communications continuing the discussion of the question of college advertising, but we deem it best to let the subject rest, believing that the Faculties Association passed the new rule.

in good faith. Should any college see fit to defy the Association and make use of such advertising methods, it would be well for the dentists of the locality to collect a few of the advertisements and forward them to the officers of the Faculties Association that they might make an example of the offender.

**Trials and Tribulations at Niagara.** There is little doubt that the publication of a long and attractive programme of papers, in advance of the meeting did much to bring about the large attendance, and the crowd once present found compensation for disappointment in the meeting of numerous

friends and the making of new acquaintances. Nevertheless it is unfortunate that so many prominent men should have prepared papers for this meeting, only to find that there would be no time when they might be read. Moreover it was deplorable that such papers as were read could not be adequately discussed, as often the discussion of a paper much enhances its value, while not infrequently many things are brought out which are more interesting than the original paper.

The chief trouble seems to have been with the rules of order, or at least with the manner of working under the rules. The scheme of section work is ideal, provided the membership in the sections be sufficiently great so that an essayist would feel contented to read his paper before his section, rather than, as now, to feel aggrieved if his paper be not offered to the full body.

If all papers could be presented to the section first, and if each section were limited to the recommendation of a single paper to be made the feature of one session of the main body, there would be abundant time for the full discussion of all papers, while there would be an incentive to authors to do their utmost, that their work might be honored as the choice of their section.

This method, however ideal, does not seem very feasible in our National Dental Association because of the small membership in some sections.

As an alternate plan, and one which offers more diversity in the National programme, the following is suggested: All papers should be sent to the appropriate sections. They should be read and recommended in the order of their importance or merit, being numbered accordingly. Then when the sections are called, instead of as now, reading all the papers from a single section before proceeding to the next, only the first paper recommended by the first section should be read, after which the first paper from the second section, to be followed by the first paper from the third section, and so on in order, taking one paper from each section until all had been heard, whereupon, there being time, the first section could be called on for

its second paper. If it would seem invidious for the sections to discriminate as to the merits of the various papers, another means would be for the sections to report all papers to the Executive Committee, who should arrange the programme following the rule of not calling a second paper from any other section until each of the other sections should have had opportunity to furnish an essayist.

Under the present system, it is possible for one section to contribute a number of dry papers, monotonously descanting on a single subject or slight variation of it, to the exclusion of more interesting papers which other sections might have to offer. There is a rule, however (if it is an unwritten rule it should be written as soon as possible), that essayists should not require more than half an hour in which to present their subject; nor should it be permitted to offer a written paper of a length within the limit, and then, having the floor, to occupy an hour or more by the addition of extemporaneous remarks; nor should old matter be introduced in whole or in part, except by special permission, given at the time. This rule was broken in all its parts. Some papers offered could not have been read in less than an hour; some were read which occupied more than half an hour; some essayists added extemporaneous remarks, occupying time which might have been accorded to others, or to discussion, and some papers contained old matter, some of which got before the meeting and some of which did not.

**International  
Tooth Crown  
Company.**

Since the International Tooth Crown Company recently stirred up the dentists of the country by announcing through the Associated Press that under a recent legal decision they would now proceed to collect several millions (or was it billions?) of dollars,

we have received numerous letters asking for information. By way of reply we offer the following extract from a circular letter recently received from Dr. Crouse:

"DEAR DOCTOR: You may or may not have heard of the recent decision which relates to the Low bridge patent. To make sure that the members have a full understanding of what has recently transpired, I will review briefly some of the past litigation.

To begin with, the International Tooth Crown Company had originally secured a decision by the highest court in the southern district of New York, declaring some of the various patents on crowns and bridges valid. With these decisions in their favor, as you may remember, eleven years ago they started through the country securing licenses and collecting royalty, the terms imposed being twenty-five dollars (\$25) per year license fee and fifteen per cent (15%) on all work done. Those signing a license agreed

thereby to the validity of some thirty-eight different patents which the Crown Company had secured on various devices.

At this stage of the proceedings the Protective Association was organized and within six weeks it had stopped the Crown Company from enforcing their patent claims. The Association drove them from one court to another, they withdrawing and paying costs rather than make a test case, until they reached the Federal district in which they had previously obtained their favorable decision. It was here that the Protective Association succeeded in having the former decision of these courts reversed and the Low bridge patent declared invalid; first before the Federal judge in the Circuit Court, and afterward in the United States Court of Appeals. This supposedly to all intents and purposes ended the litigation with the Crown Company.

In the meantime the International Tooth Crown Company had reorganized and secured in their company individuals of large means, and their efforts were being exerted to get a reversal of our decision, on the ground that they had had a favorable decision on their patents at one time, and at the second contest they had been reversed, and so they were entitled to a third hearing. We have known all this and have been pleading, wherever we could get in communication with the members, that this action was being taken by the Crown Company, and we predicted that just the results that have taken place would transpire, namely, that the Crown Company would get a decision in their favor because there was no adequate defense being made. Bear in mind, the defendant was a relative of persons connected with the Crown Company, and not a member of our Association; therefore *the Protective Association has not been represented in any way in the recent suit.* I knew of this action on the part of the Crown Company through some of the former witnesses who had been asked to testify a second time, and especially through personal interviews with the individuals who have recently invested money with the Crown Company, as they wished to know what the position of the Association would be in case of their winning this suit.

They have had their decision by Judge Townsend, which was rendered July 31, 1899, and which practically overrules or reverses the former decision, which declared the patent invalid. With this in their favor the International Tooth Crown Company are already commencing suits and sending communications to the members of the profession, a copy of one of which we append herewith:

WILLARD A. MITCHELL,  
COUNSELOR AT LAW,  
35 Nassau St.  
Telephone 5409 Cortlandt.

NEW YORK, August 5, 1899.

Dr. ....

DEAR SIR: After several years of litigation, the James E. Low patent (No. 238,940), owned by the International Tooth Crown Company, of this city, has been finally sustained, and the right of said company established to an accounting from all dentists who have been making the Low or so-called "Richmond" bridge.

In corroboration of such information in the matter as has already been furnished by the public press, your attention is invited to the opinion by Judge Townsend in the case of the International Tooth Crown Company vs. Kyle, filed in the office of the Clerk of the United States Circuit Court, in this city, on July 31, 1899. Copies of this opinion may be had upon application to this office.

I have been instructed by the said International Tooth Crown Company to prepare and return to it before the end of this month two separate lists of names of the dentists who have not yet settled and who are known to have done work infringing upon said patent; one list to contain the names of those who should be treated with courtesy, and with whom a liberal and amicable adjustment should be made, the other to contain the names of those who fail to respond to my communication or whose replies are unsatisfactory.

I have also been instructed not to institute any legal proceedings involving costs or other expense to defendants until an opportunity has been afforded to respond to this letter by filling in and returning the blank herewith enclosed.

Requesting the favor of an early reply, I am, very truly yours,

WILLARD A. MITCHELL,  
Attorney for the International Tooth Crown Company.

This is the blank referred to:

..... 1899.

WILLARD A. MITCHELL, Esq.,  
Attorney for the Int. Tooth Crown Co.,  
35 Nassau St., N. Y. City.

DEAR SIR: I elect to settle my indebtedness to the International Tooth Crown Company for infringement of its patents covering the Low or

"Richmond" bridge work upon the basis of the usual license fee, amounting to \$25 for each year in which such work was done by me between March 15, 1881 and March 15, 1898, together with a royalty of 15 per cent on all amounts collected by me for such work between said dates, provided my statement of the amount due is accepted by said company, and provided a discount of 25 per cent is allowed me by said company for a cash settlement. For the purposes of such an adjustment, and without admitting, except for the purposes of such settlement, that I am indebted in any amount whatever, I state and represent that the total license fee to which said company would be entitled from me during said period, after deducting any amounts which I may have paid for royalties and license fees, does not, to the best of my information and belief, exceed the sum of \$ , and that the total amount of royalty does not exceed the sum of \$ , and I hereby offer to adjust my indebtedness to the International Tooth Crown Company by the payment of 75 per cent of said sums.

(Signed) . . . . .

Now, Doctor, the war is on and prompt action is necessary. Heretofore the benefits of the Association have accrued to members and non-members alike. The nature of the litigation was such that this could not be very well avoided; that is, the members of the Protective Association have borne all the expense of the litigation, and while this has not been an enormous burden, since it did not amount to over a dollar a year to each member, nevertheless it was unfair to the members of the Association. Now the litigation takes a different form, and after discussing the whole question very carefully with our attorneys we have decided to protect only the members in good standing who have paid their assessment, and those who do not unite with the Association must take care of themselves. The form that this litigation will assume now will be much more troublesome, involving even more care and responsibility on my part than the former litigation, and I take on this work again very unwillingly and only from a sense of duty, as I can ill afford to neglect my practice, which is my only source of income, to give the time necessary for these additional duties. I do so only with the distinct understanding that the members stand by me, in which case they need have no fear of being compelled to pay royalty. That the Crown Company will collect millions of dollars from the dental profession we have no doubt, but let it be from those who do not come in with us.

The object of this letter is to ask you to send your ten dollars due on the assessment, and we think it hardly necessary to emphasize the need of a prompt response. Make no mistake—when I state that we can protect

the members I do so advisedly. If the Crown Company make any demands upon you, state that you are a member and refer them to me.

Please let me hear from you by return mail.. Yours very truly,

J. N. CROUSE,

Chairman Dental Protective Association,

2231 Prairie Ave., Chicago."

It has been announced that new members will be received into the Protective Association upon payment of \$20, and these new members will be protected.

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# CORRESPONDENCE

## Infirmary Charges.

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### Editor ITEMS OF INTEREST.

DEAR SIR: The letter on "College Infirmary Charges," by Dr. J. W. Daniels, in the August number needs some reply, or, rather, explanation.

While I am not in any way connected with any college at present, nor do I expect to be soon again, I was once in a position that enabled me to see the "insides of the animal" in question, and I cannot admit that it is as bad as it is painted by recent graduates.

To avoid personalities, I will admit that in Dr. Daniels's case the college possibly did make a profit upon all dentures made by him. But how many failures in that same college occurred during that time, probably Dr. Daniels cannot tell.

Most colleges expect their clinics to be self-supporting and they should be. By the time the demonstrators and secretaries are paid, and the material paid for, it is doubtful if any great sum of money is left.

College clinics cannot be run upon the idea Dr. Daniels suggests, for the reason that fully ninety-five per cent of the students are mere beginners, and make more failures than successful operations. Even in success they waste a great deal of material.

Oftentimes demonstrators are better able to judge the patient's needs than the gullible student. I have seen patients refused who made a pitiful face, yet who were worth almost a fortune.

It is quite different being in a student's shoes or in a demonstrator's. I have filled both positions (probably neither well), but I feel differently about the fortune-making clinic since.

With great respect to Dr. Daniels, I will suggest that he investigate more closely, and, perhaps, he too will change his views.

DON D. CORNELL.

Cincinnati, O.

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### Varnishing Cavities.

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Editor ITEMS OF INTEREST.

DEAR SIR: Do we not get a more lasting filling of amalgam in a tooth, by first varnishing the cavity with a thin solution of rosin in ether?

My method is to,

1st—Isolate tooth by rubber dam;

2d—Remove all decay;

3d—Sterilize cavity by the drug best indicated for case at hand;

4th—Dry cavity thoroughly with alcohol and hot air;

5th—Varnish cavity with thin solution of rosin in ether;

6th—Carefully remove all of varnish from periphery of cavity;

7th—Pack in amalgam in the usual way.

It seems to me in this way we get a more thoroughly incorporated filling.

It is pretty generally allowed by scientists that ether has great penetrating powers; especially is this true in the canaliculi of the tooth structure. By using the rosin and ether, the canaliculi become sealed. The amalgam is now pressed in, and a very intimate relation is established between the tooth and filling which would not take place if the varnish were not used.

I have hesitated to fill teeth in this way, because of having had no advice on the subject. I do not claim this as being an original idea.

Perhaps this method is in general use, but if so, I have never heard of it.

I would be pleased to hear the objections to the method, as I am not prejudiced and only want the best method.

GEORGE W. SOULE.

Boston, Mass., Aug. 8, 1899.



## BOOK REVIEWS

### Interstitial Gingivitis, or So-Called Pyorrhea Alveolaris.

By EUGENE S. TALBOT, M.D., D.D.S.

With Seventy-Three Illustrations.

The S. S. White Dental Manufacturing Co. Philadelphia, 1899.

No book that has appeared this year has deservedly excited more interest than this. It represents not only the results of many years of painstaking, intelligent labor on the part of Dr. Talbot, but in addition to this, it presents a collaboration of some excellent pathological work done by a score or more of the best pathologists in Chicago. In fact, the chief excellence of the scientific portion of the work is in the part that has been done by this unusually large corps of most competent pathologists, chemists, diologists and histologists.

Unquestionably the book will take precedence over anything that has been given to the profession on this subject up to the present time; and deservedly so, because it is arranged in a systematic manner; it is scientific; and it is presented in the best form of the modern bookmaker, which means not only good paper and good type, but superb illustrations.

No subject has more thoroughly engrossed the attention of dentists during the past decade than has that of pyorrhea alveolaris. That does not mean, however, that the mass of the profession treat or even recognize this pathological condition when such cases present themselves. The statement has frequently been made that the disease is constantly increasing. A more correct view of the situation would be to say that the mass of the profession is becoming gradually educated to the necessity of properly observing and noting the differentiation between health and disease. The greatest error that this class of the profession labors under is the notion that when it is stated that a book is scientific, it ceases to offer any practical benefit for them. The time has arrived, in the practice of dentistry, when it is essential to do things for good and valid reasons; in fact,

the day of empiricism is fast fading away. The more practical every-day worker a dentist may be, the more help will he obtain from this book.

While recognizing the many valuable qualities of this work, it is not to be inferred, by any means, that it is above criticism. It has the usual number of errors of omission and construction of other men's views which are so generally found in new books. Dr. Talbot appears to be especially unfortunate in the fact that the book bears unmistakable evidence of a strong feeling on his part, that single-handed he is opposing the views of all other prominent men who had investigated this subject. He appears to go out of his way at times in order to make others assume a position antagonistic to his own, and he does this by making partial quotations which are unfair, inasmuch as the author forms conclusions as to various men's opinions which are at variance with the real views which many of these men hold. When the matter is carefully sifted, it becomes apparent that there is very little difference of opinion as regards either the pathology or etiology of this affection among those who recognize the fact that all the various forms of pathogenic conditions around the roots of teeth are more or less resultant of some constitutional predisposing cause. In this book the author has taken particular pains to clearly and truly elucidate the fact that the various kinds of pathological conditions are produced by different predisposing causes. He has devoted special chapters to such causes as heredity, degeneracy, scorbutis, mercury, lead, brass, etc., and has most beautifully shown, by his illustrated cuts of pathological specimens, how these varying forms are productive of different results, and yet he has gone out of his way to misinterpret the position taken by a man like Kirk as to, what may be termed, the uric acid predisposing cause. The truth is, that if all the prominent investigators who have noted pathogenic symptoms of the periodental tissues resulting from some unnatural condition, would unite in an honest conclave and without bias listen to the observations of one another, they would soon recognize that there exists at the present time practically no difference of opinion. The differences that appear to exist are due to the vast number of possible predisposing causes and the narrow-minded conclusions that result from a limited sphere of observation which too frequently causes bias.

Dr. Talbot is nothing if he is not contradictory, and in this respect it is unfortunate that he has not lived up to the nobility of the idea which led him to give the following beautiful dedication to the work: "To all co-workers in Dental Science, this work as a slight token of appreciation of their contributions to Science is respectfully dedicated."

To go back to the title page, it is apparent that a serious effort has been made to introduce a new term for the well-known "pyorrhea alveolaris." All the criticisms against the use of this latter term are undeniably

well taken, and only the long familiarity of the profession with it excuses its continued use. Has the new term "Interstitial Gingivitis" sufficient merit to take its place? The first half of the term, "Interstitial" is unquestionably very descriptive of the progressive character of nearly all the types of this disorder, but unfortunately the latter half of the term is so misleading and accords so little with the specimens illustrated in the book, that it is difficult to conceive how the author could suggest such a nomenclature. While it is true that in a certain percentage of types the initial lesion and degeneration may be at the gingivæ, still this does not hold true of the majority. Even in those cases where the first signs of trouble manifest themselves at the gingivæ, the case lacks true pathological importance until the life of the pericementum is involved. This is the keynote of the pathology, and all true nomenclature should be placed upon its involvement. As soon as the nutrition of the pericementum is affected, its interstitial character is established by the fact of the disease proliferating and endangering the integrity on the one side of the cementum and enamel on the other of the periosteum and cancellous tissue. Following this line of argument to a conclusion, interstitial pericemental periostitis would not only much more accurately describe the existing conditions, but the term would be much more intelligible to the average medical man.

Especial attention is called to the slides depicting the result in cases of scurvy and also those resulting from various forms of drug action. These are perhaps the newest pathological phrases that are exhibited. Especial credit is due the attention paid by the author for so many years to the importance of the degeneration of the walls of the blood vessels in these conditions. In this book there are some beautiful specimens, especially those of *endarteritis obliterans*, showing conclusively the correctness of the long maintained view of the author of the diseased conditions of the coats of the arterioles in many types of the disease.

In reference to the bacteriology of pyorrhea alveolaris, the author's experiments coincide with those of Miller and others in failing to discover any specific micro-organisms which is capable of reproducing the disease. This pathogenic condition should not be classed with such diseases as tuberculosis, yellow fever, cholera, etc., where it is evident that the initial exciting cause must be some specific type of bacteria. On the contrary, the author has clearly shown that there are numerous stages of the disease where no bacteria can be found, and where they do appear they are never the cause of the disease, but are the results of the broken-down tissue being infected by any of the ordinary mouth micro-organisms. At this day, it becomes almost an absurdity, with the knowledge which we have of the etiology of this pathogenic condition, for any bacteriologist to attempt to find a specific germ, except for the purpose of demonstrating

such absurdity. The same line of reasoning must dispose effectually of all the arguments we have heard concerning the infectious possibilities of pyorrhea alveolaris. There never has been recorded one authentic case of a healthy mouth becoming infected with this disease. This does not mean that no infection takes place. There is a period when on account of the retrograde metamorphosis of the tissues, they are susceptible to infection from any micro-organism, and during this stage the infection takes place in the pyorrheal pockets from some of the myriads of bacteria which are constantly floating about in the oral cavity.

In treating of the etiology of this disorder, it is remarkable how much attention the author has given to the rarer types of predisposing causes and how little stress he lays upon the ordinary forms of malnutrition which are by far in the majority as predisposing causes. In this respect, the author too frequently falls into the error of mistaking effect for cause, as on page fifteen, where he speaks of skin affection producing constitutional defects, when the truth is that the skin lesions come under the same classification as pyorrhea, being results or symptoms of constitutional disorders and not the causes.

The author has devoted a short chapter to the question of treatment. That portion which outlines the treatment of any well-marked form of the disease is not only very incomplete but would be anything but reassuring to the practitioner who would attempt to cure any severe type on the lines laid down by the author.

There is, however, a portion of this chapter which is valuable and praiseworthy in the extreme. I have reference to the first part of the chapter treating of the value of prophylaxis and early diagnosis. He says:

"Early diagnosis is not difficult since the simple inflammation of the gums is easily recognized by the patient. Bleeding when the tooth brush or tooth pick is used can never be mistaken. The dentist with his accomplished eye can readily detect the slightest change in color or puffiness around the necks of teeth or the festoons between the teeth. Redness, puffiness and bleeding are pathognomonic of this disease in its incipiency."

"Few dentists have, however, given this stage of the disease any thought, albeit they have filled the teeth of their patients from year to year. I have in mind three patients with loose teeth and inflammation extending throughout the peridental membrane and alveolar process, who had been under an old practitioner now retired from practice. The patients had never had their gums treated or even their teeth cleaned. This is not an uncommon occurrence. The excuse usually made by the dentist is that he cannot get paid for his time. Gingivitis is a disease which the dentist is as much bound to treat and cure as any disease of the mouth and teeth. The treatment, then, should be prophylactic in its nature: preventive rather than corrective."

All this can only be indorsed in the highest terms. It is very easy to systematically take care of the health of one's regular patients, but corrective measures must be employed when the patient presents himself, who has not seen a dentist for years, but whose teeth are loose and whose mouth is reeking with pus. In respect to prophylaxis, Dr. Talbot devotes considerable attention to the value of massaging the gums with a tooth brush, and goes out of his way to misinterpret the position of other men on this subject by using that horrible journalistic weapon, a partial quotation. It is only fair to say that one of the primary essentials in the introduction of the Prophylactic tooth brush, and the one which had most to do with the especial construction of the form of the bristles, was its adaptability for massaging the gums in a direction parallel with the teeth.

This was demonstrated publicly on numerous occasions during the year of 1884. Nevertheless, Dr. Talbot has chosen to endeavor to prove that one of the objects of this brush was to prevent massaging the gums—one of the very things for which it was introduced.

Outside of a few such personal vagaries, the book is highly to be commended. The closest study thereof will amply repay the busy practitioner whether he considers himself to be classed among the scientists or only in the humbler walks of dental life.

M. L. R.

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## The Practice of Dental Medicine.

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By GEORGE F. EAMES, M.D., D.D.S., Professor of Pathology and Therapeutics in the Boston Dental College, etc.

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Octavo, pp. 250. Containing Thirty-Eight Engravings and Three Colored Plates.

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The S. S. White Dental Mfg. Co., Philadelphia.  
Claudius Ash & Sons, Limited, London, 1899.

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The primary object of this work, as stated by the author, is "A still greater need, more and more in evidence, as the demand for a higher education for dentists grows stronger and the necessity for a more general knowledge of medicine on their part becomes apparent, is for an explanation of the significance of dental and oral relations to certain general pathological conditions. This need is not supplied by medical colleges, for in these the teaching is not adapted to dental practice, and the dental

relations to the various subjects taught are not elucidated. It would seem that the time has come when the dentist should possess formulated rules and methods of practice in the medical treatment of dental cases.

"The effects of certain constitutional disorders upon the teeth and other oral structures are being better understood as time goes on and the influence of local pathological conditions in the mouth upon other organs and tissues are in like manner being better comprehended; therefore the advance teaching of today should give these subjects the consideration which their importance demands."

That there is a field for a work of this kind is generally admitted, and it might be added in addition to what the author has said, that the study of this book would be extremely beneficial to the average general medical man. He is much more in need of education in regard to the relationship which oral affections bear to the general condition than is the dentist. The latter receives a fair education on this subject according to the quality of the dental college which he may attend. The young practitioner of medicine enters practice totally devoid of any knowledge of stomatology, and has to pick up what kernels of information he can acquire from sad experience and the assistance of some kind dentist.

The scope of the work will be best comprehended by giving a summary of the contents: "General Considerations in Pathology; The Inflammatory Process in General, Syncope, Hysteria, Neuralgia; Consideration of Subjects Involved in the Administration of Anaesthetic Agents; Menstruation; Pregnancy; Hemorrhage; Constipation; Swallowing Plates and other foreign Bodies; Stomatitis; Diphtheria; Scurvy; Rachitis; Scrofula; Chancroid; Syphillis; Rheumatism; Dyspepsia; Tetanus; Gingivitis; Pyorrhœa Alveolaris; Phagedenic Pericementitis; Difficult Dentition; Salivary Fistula; Salivation; Ranula; Dental Caries; Hypersensitive Dentine; Hyperemia of the Dental Pulp; Pulpitis; Suppuration and Abscess of the Dental Pulp; Pericementitis; Dento-Alveolar Abscess; Dental Erosion; Abrasion; Hypercementosus; Secondary Dentine; Pulp Nodules; Necrosis; Ancylosis; Empyema and other Pathological Conditions of the Maxillary Sinus; Hypertrophy of the Faucial Tonsils; Hypertrophy of Adenoid Tissue, and the Post-nasal Space; the Relation of Adenoid Vegetations to Irregularities of the Teeth and Associate Parts."

The field covered by the author embraces practically the entire subject, and for a primary effort it is to be, as a whole, very earnestly commended. Of course, there are the usual faults of omission and error and there are many questions of practice and theory upon which all members of the profession will not agree with Dr. Eames. The make up of the book is of the usual excellent type of the house of S. S. White & Co., with the exception of the illustrations, which are by no means up to the standard

of the day, and which will very likely be materially improved at a later date. The contents of the book will be found interesting and instructive and especially valuable to the medical practitioner. M. L. R.



### N. E. Ballou.

Dr. Newton E. Ballou, son of Alfred N. and Julia Ballou, died at their Covert (Mich.) home Monday morning, February 27.

Dr. Ballou was born in Covert, October 16, 1874, was student in the schools there, and afterwards graduated in dentistry at the dental department of the Northwestern University of Chicago in 1897, spending the following year in Cambridge and Montpelier, Ind., in the practice of his profession, returning to Covert about six months ago on account of poor health.

Dr. Ballou was well known in South Haven, Mich., as the genial assistant of Dr. Runyan at varying periods since 1892, and a member of his family during a portion of this time. He not only secured a host of friends in this place, but the warmest encomiums from Dr. Runyan, who has often testified as to Dr. Ballou's skill, efficiency and industry, and also his pleasant social qualities.

His health, never robust, had suffered much in the past few years. At one time a hemorrhage of the lungs occurred, threatening speedy advancement of a consumptive condition of his lungs. His last sickness began February 6, supposed at first to be *la grippe*, but soon showing its true nature, typhoid fever, which resulted in his untimely death.





## **Thirteenth International Medical Congress, Paris, 2d to 9th of August, 1900.**

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The thirteenth International Medical Congress will meet in Paris from 2d to the 9th of August, 1900. This Congress will have a Section of Stomatology to which shall be admitted all French and foreign doctors practicing this special branch.

The officers of the Organizing Committee are:

President, Dr. Pietkiewicz; vice-presidents, Drs. Gruet and Gaillard; secretary general, Dr. Ferrier.

N. B.—All communications or questions concerning this Section should be addressed to the Secretary General, Dr. Ferrier, 39, r. Boissy-d'Anglas, Paris.

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## **International Dental Congress, Paris, France, August 8-14, 1900.**

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The committee appointed by the National Dental Association at the Omaha meeting August 30, 1896, was, by order of the Chairman, Dr. A. W. Harlan, convened at the Cataract House, Niagara Falls, August 1, 1899. No quorum being present, was adjourned to the 3d inst., at 4 p. m.

There were then present A. W. Harlan, of Chicago; H. A. Smith, Cincinnati; Thomas Fillebrown, Boston; T. E. Weeks, Minneapolis; J. D. Patterson, Kansas City; H. W. Morgan, Nashville; T. W. Brophy, Chicago; W. C. Barrett, Buffalo; W. W. Walker, New York City; W. E. Griswold, Denver, Col.; B. Holly Smith, Baltimore; J. Taft, Cincinnati, Ohio.

The meeting was called to order by the Chairman, who gave a short address, stating the object, organization, etc., of the Congress, and the work necessary for the committee to accomplish in this country.

On motion of Dr. Weeks, W. E. Griswold was elected Secretary.

On motion of Dr. Fillebrown, Dr. Wm. Jarvie, of Brooklyn, N. Y., was elected an additional member of the committee.

On motion of Dr. Smith, the Chairman and Secretary were instructed to confer with the National Association in regard to arranging an earlier meeting next year to accommodate those going abroad.

On motion of Dr. Weeks, H. S. Sutphen, of Newark, N. J., was made a member of this committee.

On motion of Dr. Barrett, a place on this committee was reserved for the President of the National Association in the year 1900, and the Chairman was authorized to insert his name.

On motion of Dr. Brophy, George H. Chance, of Portland, Ore., was made a member of this committee.

On motion of Dr. Barrett, a resolution requesting that any member of this committee finding himself unable to go abroad to attend this Congress, shall at once resign, and that the Executive Committee be empowered to fill the vacancy, was passed.

On motion of Dr. Smith, the Chairman was requested to appoint a transportation committee composed of Dr. Jarvie, Dr. Walker, Dr. Harlan and Dr. Griswold.

On motion, a committee, consisting of Dr. Brophy, Dr. Weeks and Dr. Morgan, was appointed to take charge of the exhibit of American educational methods.

On motion, an executive committee of five was appointed, consisting of Dr. A. W. Harlan, Chairman; Dr. Barrett, Dr. Brophy, Dr. E. C. Kirk and Dr. H. A. Smith.

On motion, the Executive Committee were empowered to fill vacancies in this committee.

On motion, adjourned to meet at call of Chairman.

W. E. GRISWOLD, Secretary.

423 Mack Block, Denver, Col.

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### Seventh and Eighth District Dental Societies, State of New York.

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The thirty-second Union meeting of the above societies will be held in the Assembly room of the New Osburn House, Rochester, N. Y., Tuesday, Wednesday and Thursday, October 24, 25 and 26, 1899.

#### PRELIMINARY ANNOUNCEMENT.

- I. "Cements," Dr. J. H. Beebee, Rochester.
- II. Subject to be announced, Dr. J. Wright Beach, Buffalo.
- III. "Cosmetic Dentistry," Prof. Chas. H. Ward, Rochester.
- IV. Subject to be announced, Dr. W. A. Barrows, Buffalo.

V. "Treatment of Fractures of Lower Maxilla," Dr. Frank Greene, Geneva.

VI. Subject to be announced, Dr. S. E. McDougall, Buffalo.

VII. "Anæsthetics in Dental Practice," Dr. J. F. Knapp, Geneva.

VIII. Subject to be announced, Dr. Preston, Buffalo.

IX. "The Use and Limitations of Formaldehyde in Dentistry," Dr. F. W. Low, Buffalo.

X. Subject to be announced, Dr. R. H. Hofheinz, Rochester.

XI. "The Embryological Development of the Dental Tissues," Dr. W. C. Barrett, Buffalo.

XII. Subject to be announced, Dr. Leroy Requa, Rochester.

XIII. "Articulation," Dr. Geo. B. Snow, Buffalo.

XIV. Subject to be announced, Dr. W. H. Povall, Mt. Morris.

XV. Subject to be announced, Dr. C. H. Nicholson, Rochester.

The committee in addition have under arrangement other important additions. There will be clinics in abundance, together with a complete dental exhibit. The committee are making strenuous efforts to make this one of the best Union meetings ever held by the society and well worthy of your attendance. Members of the profession are cordially invited.

Wm. W. BELCHER, Chairman,  
827 Granite Building, Rochester, N. Y.

### **New Hampshire Dental Society.**

The New Hampshire Dental Society will hold its next annual meeting at the New Manchester House, Manchester, N. H., Nov. 14, 15 and 16.

FRED F. FISHER, Secy.,  
Manchester, N. H.

### **South Carolina State Dental Association.**

The twenty-ninth annual meeting of the South Carolina State Dental Association was held at "Harris Lithia Springs," commencing July 11, 1899.

The following officers were elected for the ensuing year:

President, P. B. Connor, Laurens; 1st Vice-President, T. J. Crymes, Greenwood; 2d Vice-President, C. B. Colson, Charleston; Corresponding Secretary, David Aiken, Winnsboro; Recording Secretary, R. Atmar Smith, Charleston; Treasurer, George W. Dick, Sumter.

The next meeting will be held at the same place as this year's meeting, and will convene on the second Tuesday in July, 1900.

**Northeastern Dental Association.**

The fifth annual meeting of the Northeastern Dental Association will be held in Hotel Hamilton, Holyoke, Mass., on Wednesday and Thursday, October 18 and 19, 1899. The Executive hope for and desire a large attendance, as their labors have been crowned with such success that the entire exhibit space has been already engaged. Essayists of prominence have accepted invitations enough to fill up all the allotted time. Clinics enough have been promised, and thus a meeting worthy of your attendance has been arranged.

Be sure and save out the above dates and attend. A cordial invitation is extended to the profession at large to attend.

Cambridge, Mass.

EDGAR O. KINSMAN, Secretary.

**Vermont Board of Dental Examiners.**

A meeting of the Vermont Board of Dental Examiners will be held at Pavilion Hotel, Montpelier, October 18, 1899, at 2:30 p. m., for the examination of candidates.

The examination will be in writing, and will include anatomy, physiology, histology, bacteriology, chemistry, metallurgy, pathology, therapeutics, surgery, *materia medica*, anaesthesia, operative and prosthetic dentistry, together with an operation in the mouth.

Candidates must come prepared with instruments, rubber dam and gold.

Applications, together with the fee, \$10, must be filed with the Secretary on or before October 10.

GEORGE F. CHENEY,

St. Johnsbury, Vt.

Secretary.

**New Jersey State Dental Society.**

At the annual meeting of the New Jersey State Dental Society, held at Asbury Park, July 21, 1899, the following officers were elected for the ensuing year:

President, William E. Truex, Freehold; Vice-President, F. Edsall Riley, Newark; Secretary, Charles A. Meeker, Newark; Assistant Secretary, H. S. Sutphen, Newark; Treasurer, Henry A. Hull, New Brunswick.

**ITEMS OF INTEREST**

Executive Committee—Oscar Adelberg, Elizabeth; H. S. Sutphen, Newark; William L. Fish, Newark; Frank L. Hindle, New Brunswick.

Membership Committee—William H. Pruden, Chairman, Paterson; N. M. Chitterling, Bloomfield; F. G. Gregory, Newark; G. M. Holden, Hackettstown; J. L. Crater, Orange.

Member of State Examining Board—Charles A. Meeker, Newark.

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**Missouri State Dental Association.**

The Missouri State Dental Association, at its thirty-fifth annual meeting, July 11-14, 1899, at Kansas City, Mo., elected the following officers:

President, W. L. Reed, Mexico; 1st Vice-President, S. J. Smith, Columbia; 2d Vice-President, A. M. Tutt, Liberty; Corresponding Secretary, B. L. Thorpe, St. Louis; Recording Secretary, H. H. Sullivan, Kansas City; Treasurer, J. A. Price, Savanna.

Next place of meeting, Louisiana, Mo., the first Tuesday after July 4, 1900.

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**Rhode Island Dental Society.**

At the twenty-second annual meeting of the Rhode Island Dental Society, held at Newport, R. I., July 11, the following officers were elected for the ensuing year:

President, V. J. Baggott, Providence; Vice-President, George Ames, Providence; Secretary, Clarence Carr, Newport; Treasurer, H. W. Gillett, Newport; Librarian, D. F. Keefe, Providence.

Executive Committee—R. L. Davis, Woonsocket; W. Howard, Newport; J. A. Lynch, Providence.

Banquet at New Cliffs Hotel, and papers by Dr. Concklin, of New York, and Dr. Brackett, of Newport, R. I.

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**Minnesota State Dental Association.**

The sixteenth annual session of the Minnesota State Dental Association was held at Northfield, Minn., July 25, 26 and 27, 1899. The following officers were elected for the coming year:

President, Dr. W. N. Murray, Minneapolis; vice-president, Dr. J. N. Walls, St. Paul; secretary, Dr. H. L. Cruttenden, Northfield; treasurer, Dr. H. N. Reid, Minneapolis.

Executive Committee—Dr. F. H. Orton, Chairman, St. Paul; Dr. A. Oure, Master of Clinics, Minneapolis; Dr. J. W. Penberthy, Minneapolis; Dr. C. N. Jones, St. Paul; Dr. A. C. Searl, Owatonna.

Membership Committee—Dr. E. G. Riddell, Chairman, Northfield; Dr. A. C. Rosenquist, St. Peter; Dr. C. N. Nutting, Spring Valley; Dr. J. B. Little, St. Paul; Dr. O. A. Weiss, Minneapolis.

The next place of meeting will be at Minneapolis or at one of the lake hôtels at Minnetonka, date to be fixed by the Executive Committee.

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### Complimentary Resolutions to Prof. L. L. Dunbar.

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Dr. L. L. Dunbar has retired from the active duties of Professor and Dean of the College of Dentistry of the University of California, with which he has been identified for the past twelve years. The Faculty, in accepting the resignation of Professor Dunbar, adopted the following resolutions, viz.:

*Whereas*, the Faculty feels that in the future, as in the past, he will take the same deep interest in the welfare of our College, and knows that his friendly and cordial relations with this Faculty will ever continue; therefore be it

*Resolved*, That the resignation of Prof. L. L. Dunbar, as Professor and as Dean be accepted.

*Resolved*, That the Board of Regents be requested to appoint Dr. L. L. Dunbar, Emeritus Professor of Operative Dentistry.

*Resolved*, That this Faculty present to Professor Dunbar a suitably inscribed testimonial, as not only a small token of our esteem and our friendship, but also in appreciation of his many years of service as Dean and Professor.

*Resolved*, That the Dean be requested to send a certified copy of this report to Professor Dunbar.

The above resolutions were presented to Professor Dunbar at a special meeting of the Faculty held on the 18th inst., which was also made the occasion for the presentation to him by his former colleagues of a massive silver punch bowl appropriately inscribed. The recipient was taken entirely by surprise, but was able to make a fitting response to this exhibition of confidence.

The occasion was altogether one of felicitation.

San Francisco, August 21, 1899.

**Massachusetts Board of Registration in Dentistry.**

A meeting of the Massachusetts Board of Registration in Dentistry, for the examination of candidates, will be held in Boston, Monday, November 13, 1899, at 9.30 a. m., at Harvard Dental Infirmary, North Grove street.

Examination in operative dentistry at 10.30 o'clock.

Each candidate must come prepared with rubber dam, gold and instruments, to demonstrate his skill in operative dentistry. Anyone who wishes may bring his patient. So far as possible patients will be furnished.

The theoretic examination will include operative dentistry, prosthetic dentistry, crown and bridge work, orthodontia, anatomy, histology, surgery, pathology, *materia medica*, therapeutics, physiology and *anæsthesia*, and will be held at Civil Service Rooms, State House, commencing Tuesday, November 14, at 9:30 o'clock.

All applications, together with the fee of twenty dollars, must be filed with the Secretary of the board on or before November 6, as no application for this meeting will be received after that date.

Candidates who have taken an examination and desire to come before the board again at this meeting must notify the Secretary as above in order to be registered.

G. E. MITCHELL, D. D. S., Secretary.

25 Merrimack Street, Haverhill, Mass.

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**The National Association of Dental Examiners.**

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The sixteenth annual session of the National Association of Dental Examiners was held at Niagara Falls, N. Y., July 28, 29 and 31. The following members were elected as officers to serve for the new year: President, C. C. Chittenden, D. D. S., Madison, Wis.; vice-president, A. C. McCurdy, D. D. S., Baltimore, Md.; secretary and treasurer, Charles A. Meeker, D. D. S., Newark, N. J.

Committee on Colleges—John F. Dowsley, D. D. S., Boston, Mass.; J. A. Hall, D. D. S., Collinsville, Ala.; James M. Keene, D. D. S., Medford, Ore.

The secretary earnestly requests the secretary or officers of every board in the United States and Territories to mail him their lists of officers and members with addresses.

CHARLES A. MEEKER,  
Secretary, 29 Fulton St., Newark, N. J.